

ALL HANDS



MAGAZINE OF THE U.S. NAVY

Owner's and Operator's Manual
JANUARY 1995

ALL HANDS

January 1995

Number 933

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On the Covers

"The Ocean, The Highway of All Nations,"
oil painting by Edward Moran.



The wave represents naval power reaching Forward ... From the Sea.

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U.S. Navy Owner's and Operator's Manual

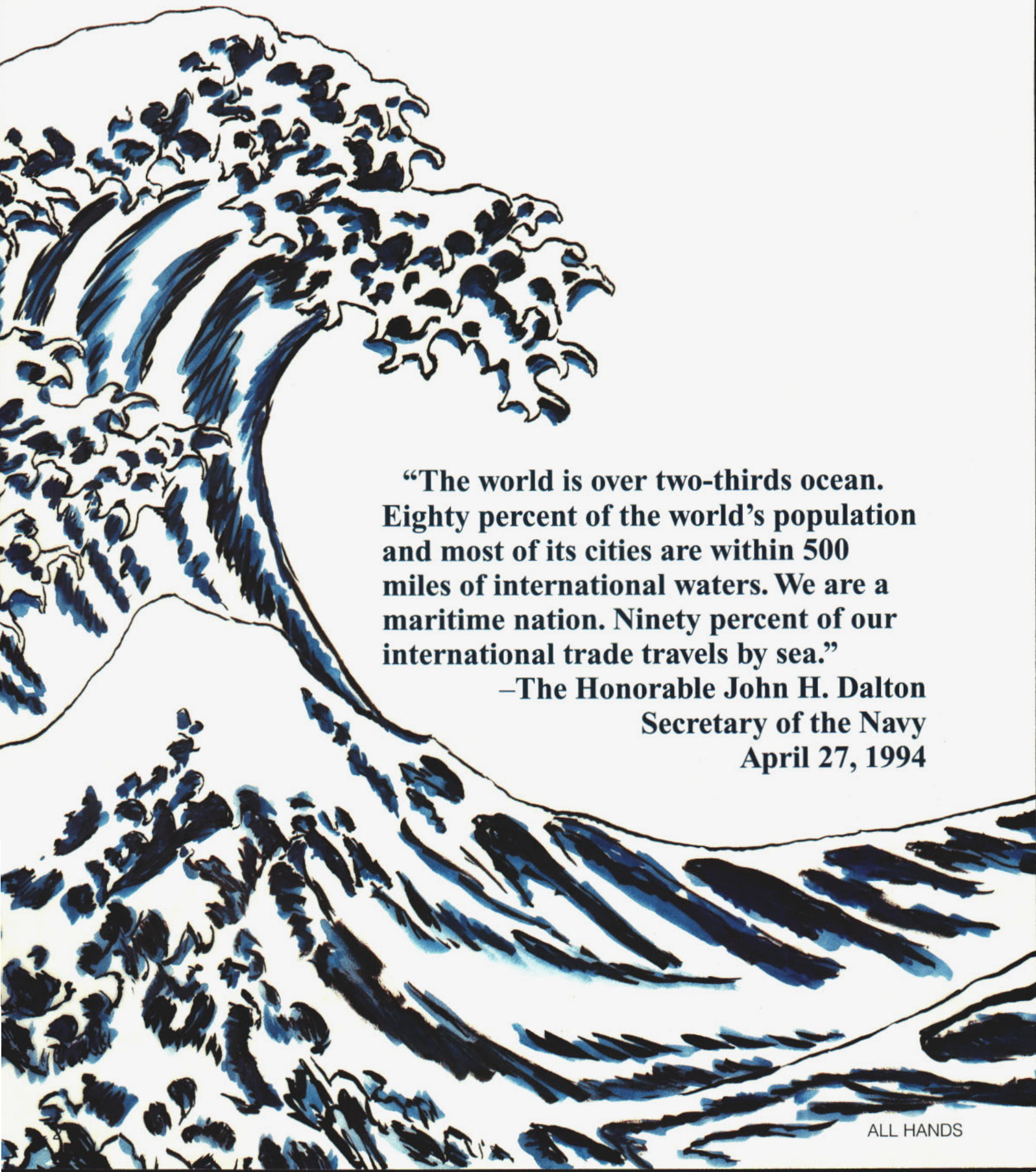


Throughout the Navy, we see changes. We find ourselves involved simultaneously in regional conflicts and humanitarian operations. Historic Navy bases face closure, and high-tech ships enter the fleet while older classes are decommissioned. Job assignments have become virtually gender-neutral, the Navy is “right-sizing” and doing business differently these days. We are back in the business of career planning and retention.

Last year, the *All Hands* staff created and produced an “Owner’s and Operator’s Manual” for today’s Sailor. The issue proved to be the most popular *All Hands* ever. Besides providing you with a handy resource of general and specific Navy information, we also gave you a synopsis of what’s happening in the Navy during this time of change.

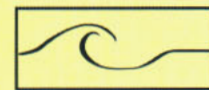
You asked for more and we are proud to honor that request.





**“The world is over two-thirds ocean.
Eighty percent of the world’s population
and most of its cities are within 500
miles of international waters. We are a
maritime nation. Ninety percent of our
international trade travels by sea.”**

**—The Honorable John H. Dalton
Secretary of the Navy
April 27, 1994**



Naval forces are designed to fight and win wars. Our most recent experiences, however, underscore the premise that the most important role of naval forces in situations short of war is to be engaged in forward areas, with the objectives of preventing conflicts and controlling crises.

Thus naval forces are the foundation of peacetime forward presence operations and response to crisis overseas. They contribute heavily during the transitions from crisis to conflict or from crisis to resolution and help ensure compliance with terms of peace.

At the same time, the unique capabilities inherent in naval expeditionary forces have never been in higher demand from U.S. theater commanders – the regional commanders-in-chief – as evidenced by operations in Somalia, Haiti, Cuba, Bosnia and Kuwait, as well as our continuing contribution to the enforcement of U.N. sanctions against Iraq.

The strategic imperative

The vital economic, political, and military interests of the United States are truly global in nature and scope. In many respects these interests are located across broad oceans, and to a great extent they intersect those of current or emergent regional powers. It is in the world's coastal waters where the naval service, operating from sea bases in international waters, can influence events ashore in support of American interests.

Because we are a maritime nation, our strategy is necessarily a transoceanic one. Our vital interests – those interests for which the United States is willing to fight – are at the end point of highways of the seas or lines of strategic approach that extend from the United States.

Peacetime forward presence operations

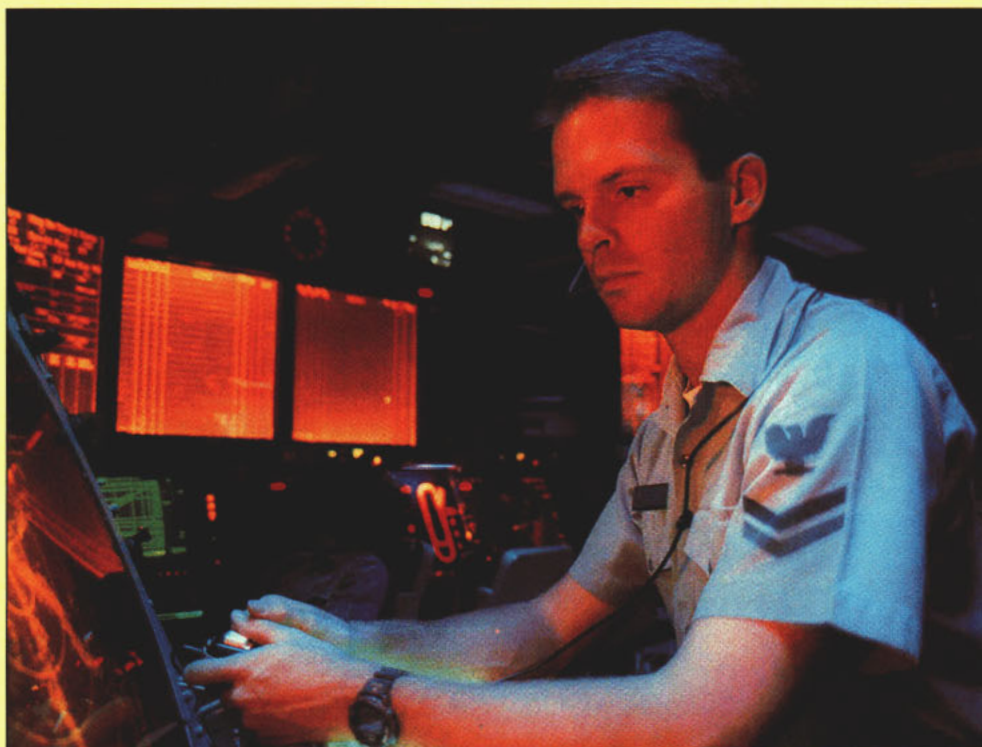
Naval forces are an indispensable and exceptional instrument of U.S. foreign policy. In peacetime, our naval forces build interoperability – the ability to operate in concert with friendly and allied forces – so that in the future we can participate fully as part of a formal multinational response or as part of ad hoc coalitions forged to react to short – notice crisis situations. Participation in a variety of exercises with the navies, air forces, and land forces of coalition partners around the Pacific rim, Norwegian Sea, Persian Gulf, and Mediterranean basin provides solid foundations for sustaining interoperability with our friends and allies.

U.S. forward-deployed naval forces have also contributed to humanitarian assistance and disaster relief efforts – from Bangladesh, to the Philippines, to Rwanda – with similar, very positive, results.

Although naval presence requires a wide range of forward-deployed Navy and Marine Corps units afloat and ashore in friendly nations, our basic building blocks remain aircraft carrier battle groups – with versatile, multipurpose, naval tactical aviation wings – and Amphibious Ready

Groups with special operations-capable Marine Expeditionary Units. Forward –deployed surface warships – cruisers and destroyers – with theater ballistic missile defense capabilities by offering a credible defense against enemy ballistic missiles.

In addition, even as we have shifted our emphasis to forward



presence and power projection from sea to land, the Navy continues to provide a robust strategic nuclear deterrent by maintaining strategic ballistic missile submarines at sea. As long as it is U.S. policy to ensure an adequate and ready strategic nuclear deterrent, our highly survivable strategic ballistic missile submarines will remain critical to national security.

Crisis response

U.S. naval forces are designed to fight and win wars, as are all elements of our military arsenal. To deter aggressors, we must be capable of responding quickly and successfully in support of U.S. theater commanders.

Building on normally deployed forces, we can mass, if the situation requires, multiple aircraft carrier battle groups in carrier battle forces, Amphibious Ready Groups with embarked Marine Expeditionary Units into Amphibious Task Forces, and as needed project our naval expeditionary forces ashore using the afloat Maritime Prepositioning Force. Such a massing of naval units can be complemented by the deployment of Army and Air Force units to provide a joint force capable of the full range of combat operations that may be required.

A U.S. warship is sovereign U.S. territory, whether visiting a friendly country, transiting international straits or operation of the high seas. U.S. naval forces work from highly mobile sea bases in forward areas, and are therefore free of the political encumbrances that may inhibit and otherwise limit the scope of land-based operations in forward theaters.

Regional conflict

Naval forces make a critical contribution in a major regional contingency during the transition from crisis to conflict. Forward naval forces deployed for presence and reinforced in response to an emerging crisis can serve as the transition force as land-based forces are brought forward into theater.

Joint and combined operations

No single military service embodies all of the capabilities needed to respond to every situation and threat. Our national strategy calls for the individual services to operate jointly to ensure both that we can operate successfully in all warfare areas and that we can apply our military power across the spectrum of foreseeable situations – in peace, crisis, regional conflict, and the subsequent restoration of peace.

The enhanced combat power produced by the integration of all supporting services, which we seek to attain through





joint operations, is inherent in naval expeditionary forces. For example, the aircraft carrier battle group integrates and focuses diverse technologies and combat capabilities to assure the dominance of the air, surface, and subsurface battle space necessary of the prosecution of subsequent campaigns. Further, Marine Expeditionary Forces, employing Marine Air-Ground Task Force (MAGTF) combined arms doctrine, are the most versatile expeditionary force in existence. Established by law to be forces of combined arms, together with supporting air components, MAGTFs are expeditionary, rapidly expandable air-ground formations, capable of operating from sea bases, ashore, or both, simultaneously.

Forward with our new direction

The new direction for the naval service remains focused on our ability to project power from the sea in the critical

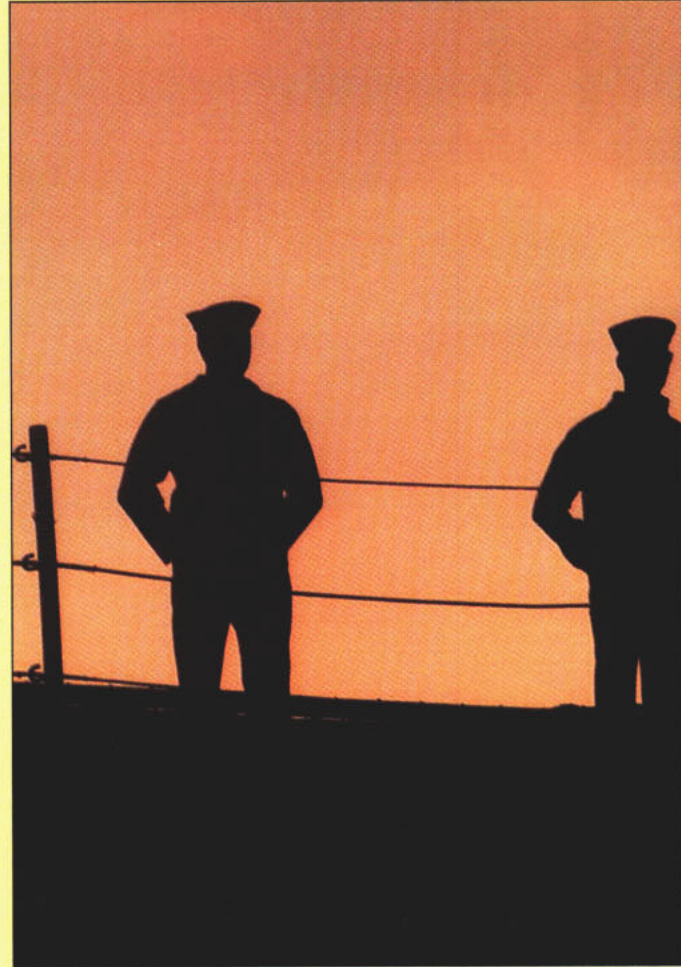


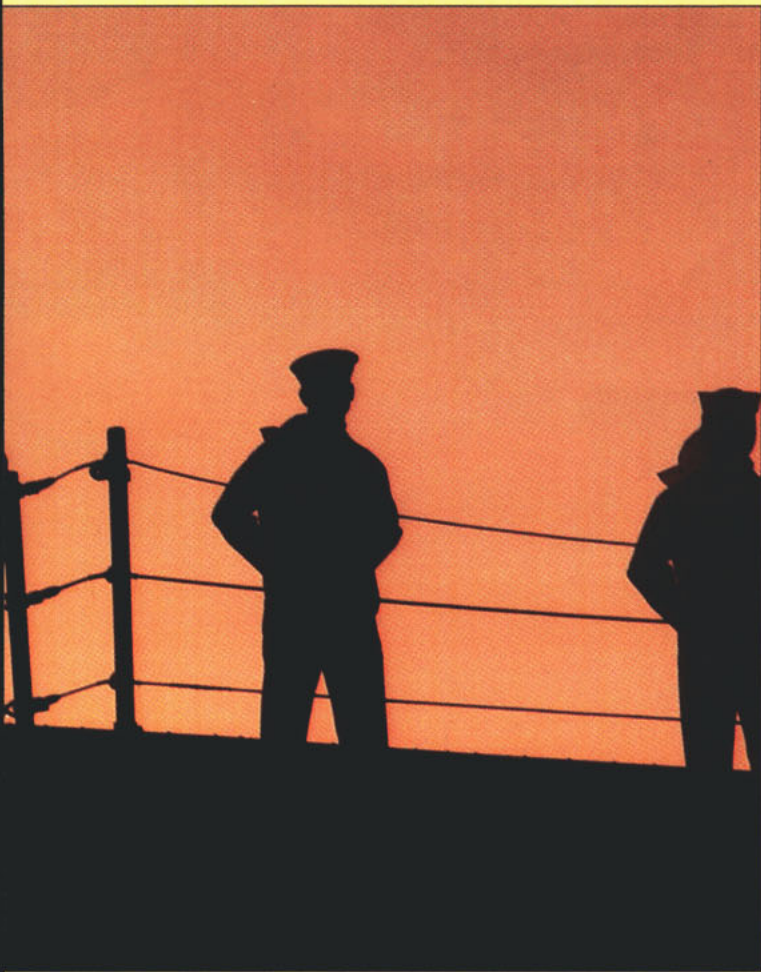


littoral regions of the world. We remain committed to structuring our naval expeditionary forces so that they are inherently shaped for joint operations, with the emphasis on operations forward from the sea, tailored for national needs.

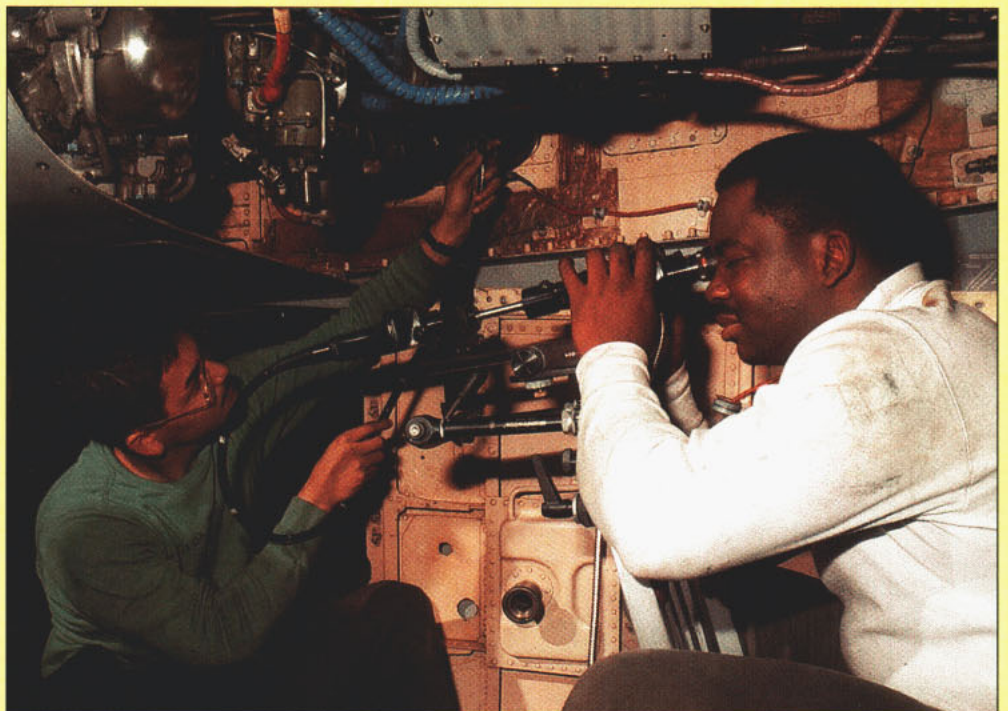
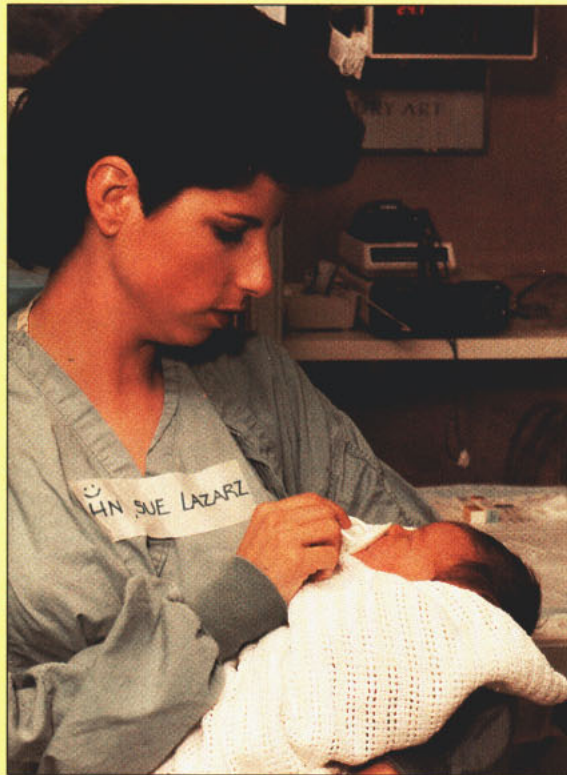
Our strategy and policies continue to evolve as we learn from our recent experiences and prepare for the new challenges and opportunities of this highly dynamic world. Naval forces have five fundamental and enduring roles in support of the national security strategy: projection of power from sea to land, sea control and maritime supremacy, strategic deterrence, strategic sealift, and forward naval presence. We will continue to carry out these roles to protect vital U.S. global interests, citizens, allies and friends, wherever they may be at risk.

The Cold War may be over, but the need for American leadership and commensurate military capability endures. Many of our most vital interests remain overseas where the Navy and the Marine Corps are prepared for new challenges – forward deployed, ready for combat, and engaged to preserve the peace. ‡





Our People





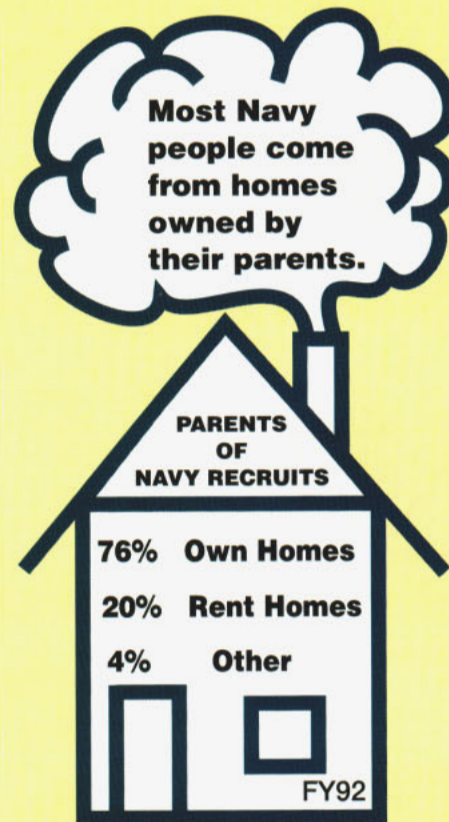
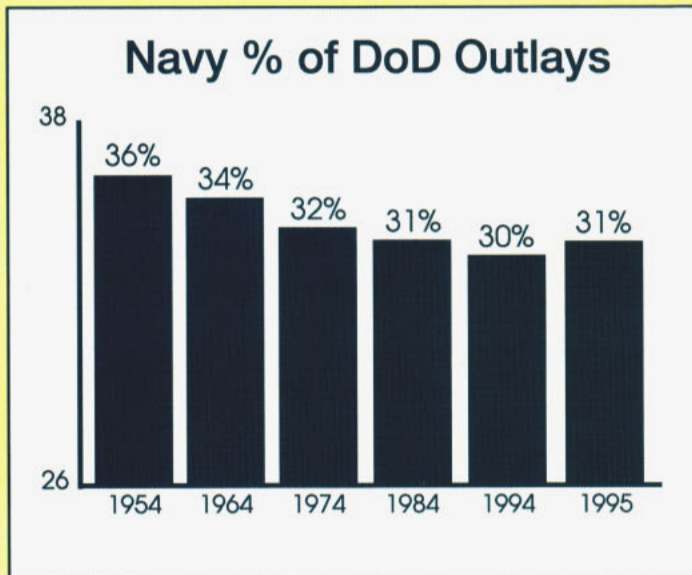
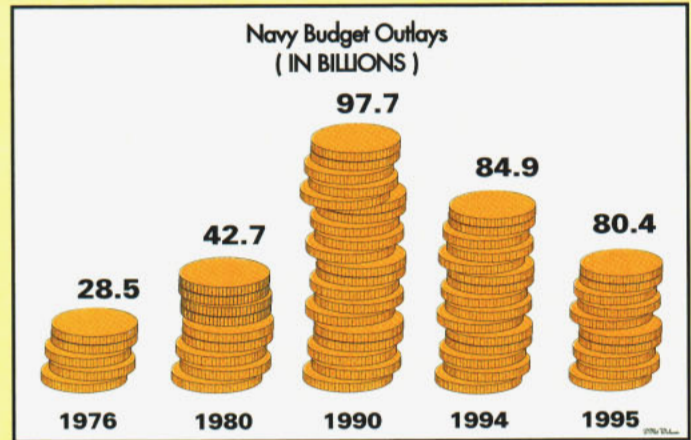
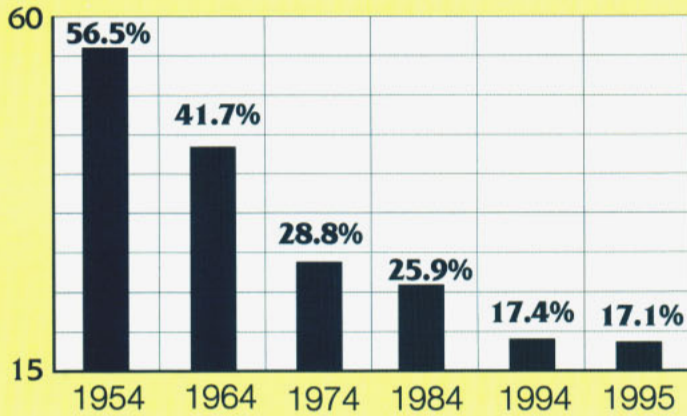
Rudder Orders

These guiding principles are the foundation upon which the entire Navy operates:

- ❖ People are the Navy's most valuable asset.
- ❖ Training and education are vitally important.
- ❖ The Navy must attract quality individuals.
- ❖ We value and depend on professional input and ideas from all our people.
- ❖ We encourage our people to make the Navy a career.
- ❖ We do not tolerate discrimination, any form of sexual harassment, fraternization, or the illegal or improper use of drugs or alcohol.
- ❖ We provide frequent recognition to deserving individuals and units.
- ❖ We provide timely, constructive written evaluations of performance.
- ❖ Our goal is to promote people to the highest grade or rank according to their abilities.
- ❖ We strive to provide high quality, attractive, modern facilities for our people.
- ❖ We make duty assignments based on both the needs of the Navy and the needs of the individual.
- ❖ We are committed to the safety of our people.
- ❖ Some personal hardships may require reassignment or discharge from naval service.
- ❖ We are accountable to standards of conduct, federal statutes and regulations.
- ❖ We provide leave for every member, liberty time away from work, all benefits allowed by law and seek to keep pace with changing economic conditions.
- ❖ We look after the individual needs of our people.

Facts and figures

DoD % of Total Federal Budget



THREE MOST POPULATED OCCUPATIONAL CATEGORIES BY SELECTED RESERVE OFFICERS

HEALTH CARE
18%

INTELLIGENCE
10%

TACTICAL OPERATIONS
41%



82% of
Sailors' Parents
are Married

FY92

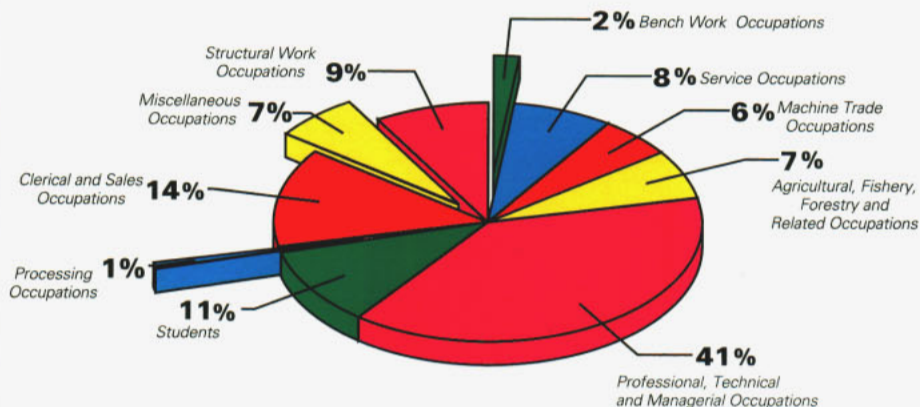


83% of
Sailors' parents
have at least
a high school diploma

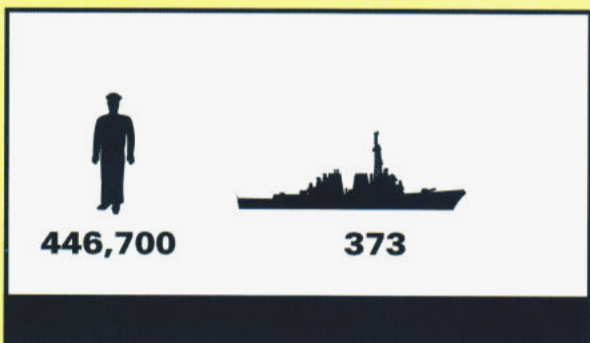
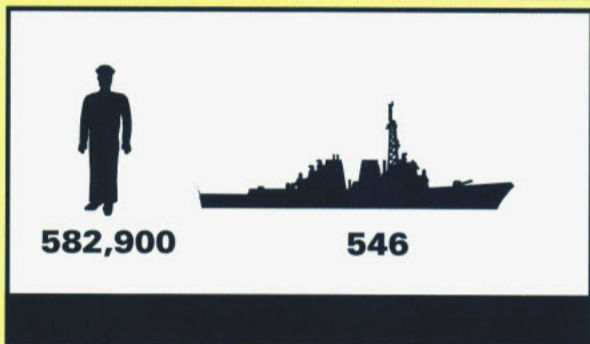
FY92



Naval Reservists in civilian occupational fields

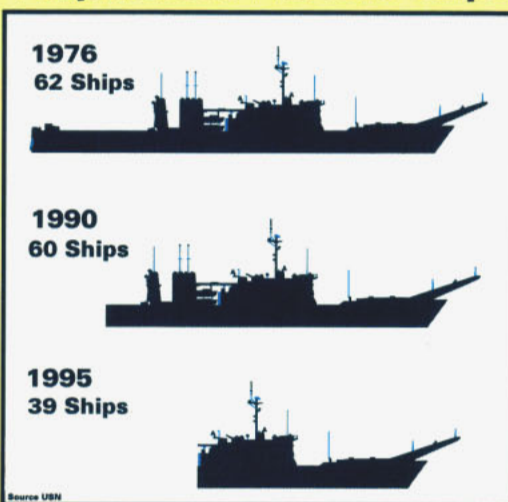


Source: Commander Naval Reserve Forces

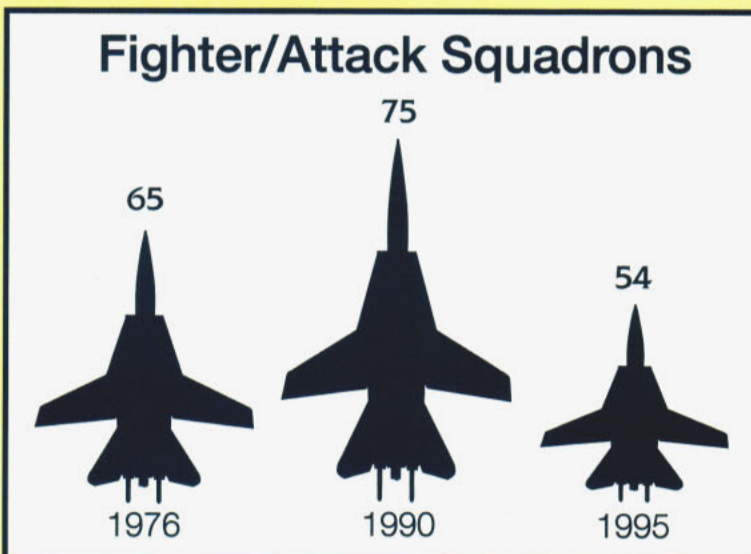


Personnel and Ships

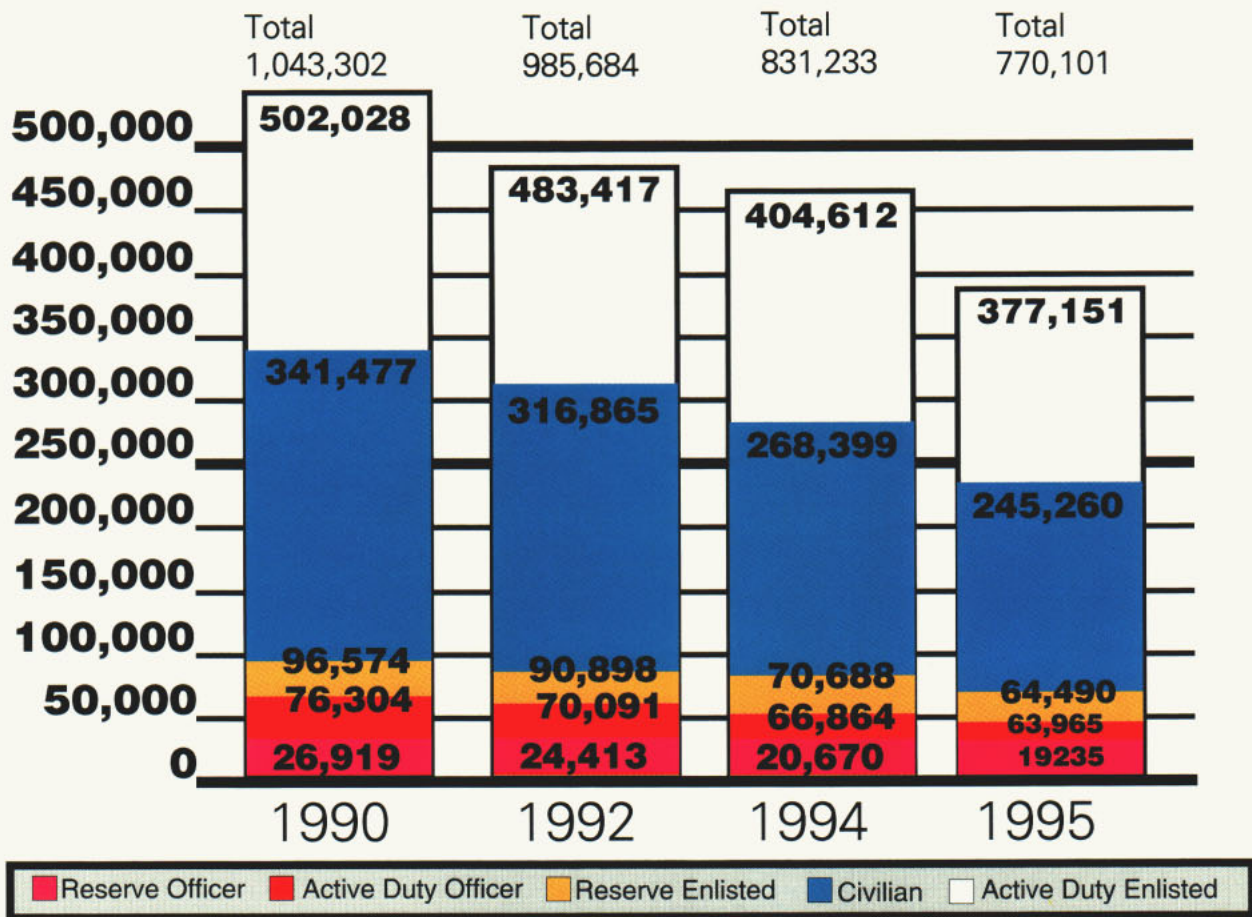
Amphibious Warfare Ships



Fighter/Attack Squadrons

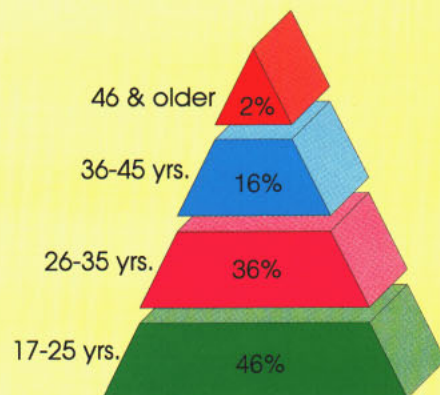


Navy Personnel Strength



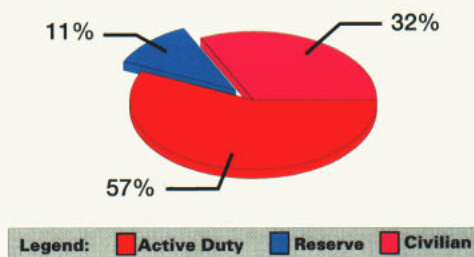
Source: Department of the Navy and Commander Naval Reserve Force

Active-Duty Personnel By Age



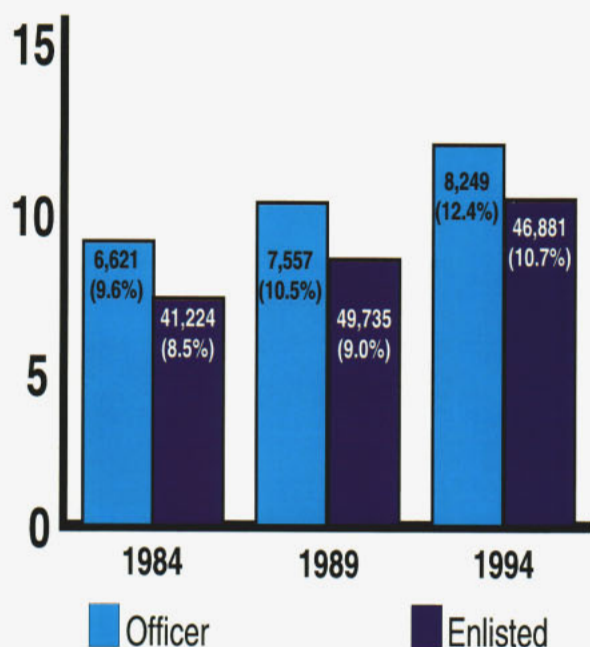
Source: Department of the Navy
(As of June, 1993)

Navy Personnel
Demographic Breakdown



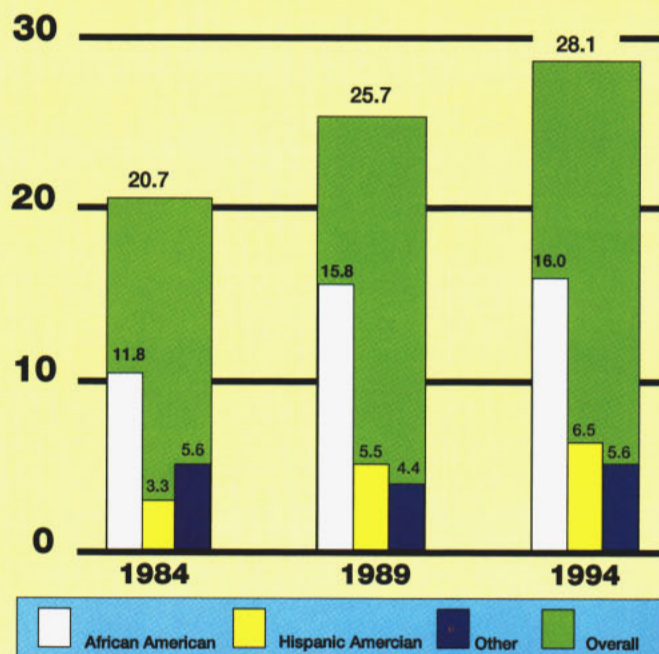


Women in the Navy



Source: BUPERS

Minorities in the Navy



Source: Bureau of Naval Personnel

Major Naval Reserve Mission Areas

Percentage of Navy's Total Capability

Heavy Airlift

Mobile Inshore Warfare

Naval Control of Shipping

Cargo Handling

Military Sealift

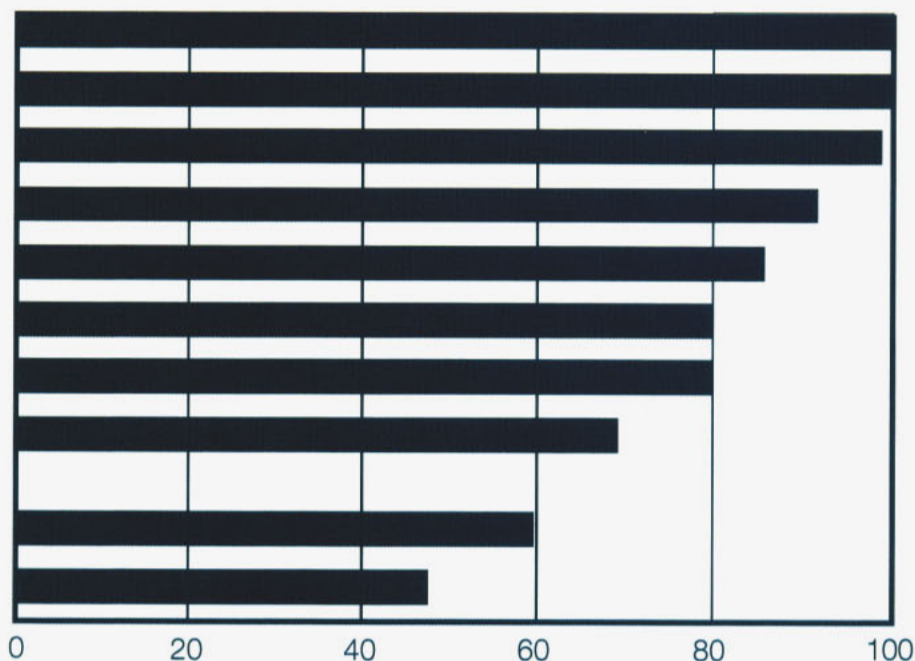
Adversary Aircraft

Strike Rescue Helo

Coastal Minehunters & Mine
Countermeasures Ships

Construction Battalions

Intelligence



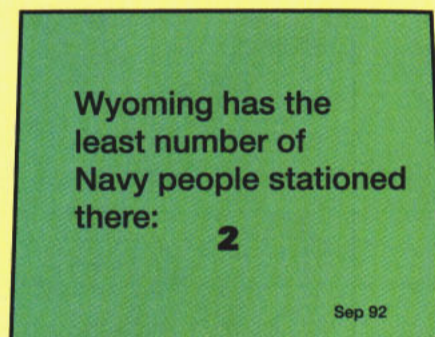
Facts and figures

EDUCATIONAL PROGRAMS

Program for Afloat College Education (PACE)
 Servicemember's Opportunity Colleges, Navy (SOCNav)
 Naval Academy Prep School (NAPS)
 U.S. Naval Academy
 Apprenticeship Program
 American Council on Education (ACE)
 Defense Activity for Non-Traditional Education Support (DANTES)
 Enlisted Education Advancement Program (EEAP)
 Enlisted Commissioning Program
 Broadened Opportunity for Officer Selection and Training (BOOST)
 Education and Training Management Subspecialty

Department of Veterans Affairs Education Programs

Veterans Educational Assistance Program (VEAP)
 Montgomery GI Bill (MGIB)
 Selected Reserve GI Bill (RMGIB)



OFF-DUTY DEGREES EARNED



AS/ AA	BS/ BA	MS/ MA

ENLISTED	1,285	1,142	161
OFFICERS	25	97	319

FY93

THE NAVY SPENT NEARLY \$25 MILLION IN TUITION ASSISTANCE LAST YEAR.

TUITION ASSISTANCE



PARTICIPANTS 43,106
 COURSES 123,946

PACE COURSES



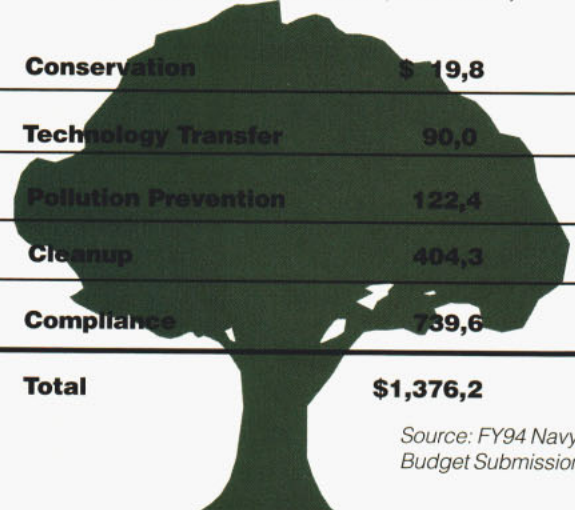
PARTICIPANTS 25,920
 COURSES 5,243



Navy commitment to environmental protection ensures that Navy installations and operating forces worldwide can meet mission requirements, while also protecting and enhancing the environment, thus being a good neighbor and responsible steward of our natural resources. Five major program pillars reflect that commitment.

Environmental Programs

FY 94 Expenditures (\$millions)



Conservation	\$ 19,8
Technology Transfer	90,0
Pollution Prevention	122,4
Cleanup	404,3
Compliance	739,6
Total	\$1,376,2

Source: FY94 Navy
Budget Submission

Cleanup: The Navy is working to remedy contamination from past activities at over 4,000 sites on 280 installations.

Compliance: The Navy policy is to ensure current operations ashore and afloat comply with federal, state and local laws and regulations.

Conservation: The Navy works with other government agencies and private concerns to protect natural and cultural resources on Navy lands and in the sea. Navy installations are frequently located in sensitive biological areas containing some of the remaining habitats of endangered species.

Pollution prevention: The Navy has cut hazardous waste disposal 51 percent in the last five years. Recycling has increased. New programs are being implemented to reduce the types and amounts of hazardous materials used in industrial processes and in the products purchased.

Technology transfer: The Navy is working through its own labs together with industry and universities to research and develop new environmental technologies. These technologies provide leverage needed to make compliance achievable and affordable. This work has led to development of waste processing equipment for shipboard use which is completing operational evaluation, detection of global environmental changes, research on environmentally friendly antifouling compounds, and more.



Don Shauer, an environmental engineer at NAS Patuxent River, takes water samples from a discharge point at the Jet Engine Test Cell.



Monthly Career Sea Pay Chart

Pay Grade	1 or less	Over 1	Over 2	Over 3	Over 4	Over 5	Over 6	Over 7	Over 8	Over 9	Over 10	Over 11	Over 12	Over 13	Over 14	Over 16	Over 18	Over 20
Enlisted Members																		
E-9	100.00	100.00	120.00	175.00	190.00	350.00	350.00	375.00	390.00	400.00	400.00	410.00	420.00	450.00	475.00	520.00		
E-8	100.00	100.00	120.00	175.00	190.00	350.00	350.00	375.00	390.00	400.00	400.00	410.00	420.00	450.00	475.00	500.00	520.00	
E-7	100.00	100.00	120.00	175.00	190.00	350.00	350.00	375.00	390.00	400.00	400.00	410.00	420.00	450.00	475.00	500.00		
E-6	100.00	100.00	120.00	150.00	170.00	316.00	325.00	350.00	350.00	365.00	365.00	365.00	380.00	395.00	410.00	425.00	450.00	
E-5	50.00	60.00	120.00	150.00	170.00	316.00	325.00	350.00										
E-4	50.00	60.00	120.00	150.00	160.00													
Warrant Officers																		
W-5	150.00	150.00	150.00	150.00	170.00	290.00	310.00	310.00	310.00	310.00	350.00	375.00	400.00	400.00	450.00	450.00	500.00	
W-4	150.00	150.00	150.00	150.00	170.00	290.00	310.00	310.00	310.00	310.00	350.00	375.00	400.00	400.00	450.00	450.00	500.00	
W-3	150.00	150.00	150.00	150.00	170.00	270.00	280.00	285.00	290.00	310.00	350.00	375.00	400.00	400.00	425.00	450.00	450.00	
W-2	150.00	150.00	150.00	150.00	170.00	260.00	265.00	265.00	270.00	310.00	340.00	340.00	375.00	375.00	400.00			
W-1	130.00	135.00	140.00	150.00	170.00	175.00	200.00	250.00	270.00	300.00	325.00	325.00	340.00	340.00	360.00	375.00		
Commissioned Officers																		
O-6			225.00	230.00	230.00	240.00	255.00	265.00	280.00	290.00	300.00	310.00	310.00	325.00	240.00	265.00	380.00	
O-5			225.00	225.00	225.00	230.00	230.00	245.00	250.00	260.00	265.00	265.00	265.00	285.00	300.00	215.00	340.00	
O-4			185.00	190.00	200.00	205.00	215.00	220.00	220.00	225.00	225.00	225.00	240.00	270.00	280.00	290.00	300.00	
O-3			150.00	160.00	185.00	190.00	195.00	205.00	215.00	225.00	225.00	240.00	240.00	260.00	270.00	280.00	290.00	
O-2			150.00	160.00	185.00	190.00	195.00	205.00	215.00	225.00	225.00	240.00	240.00	250.00	260.00	270.00	280.00	
O-1			150.00	160.00	185.00	190.00	195.00	205.00	215.00	225.00	225.00	240.00	240.00	250.00	260.00	270.00	280.00	

Source: Defense Finance and Accounting Service

Monthly Submarine Pay Chart

Pay Grade	2 or less	Over 2	Over 3	Over 4	Over 6	Over 8	Over 10	Over 12	Over 14	Over 16	Over 18	Over 20	Over 22	Over 24	Over 26
Enlisted Members															
E-9	225.00	225.00	225.00	270.00	295.00	310.00	315.00	330.00	345.00	355.00	355.00	355.00	355.00	355.00	355.00
E-8	225.00	225.00	225.00	250.00	270.00	295.00	310.00	315.00	330.00	345.00	355.00	355.00	355.00	355.00	355.00
E-7	225.00	225.00	225.00	250.00	255.00	265.00	275.00	295.00	310.00						
E-6	155.00	170.00	175.00	215.00	230.00	245.00	255.00	265.00							
E-5	140.00	155.00	155.00	175.00	190.00	195.00									
E-4	80.00	95.00	100.00	170.00	175.00										
E-3	80.00	90.00	95.00	95.00	140.00	90.00									
E-2	75.00	90.00													
E-1	75.00														
Warrant Officers															
W-1 to W-5	235.00	310.00	310.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00
Commissioned Officers															
O8 to O-10	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00
O-7	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	355.00	540.00	535.00	535.00	410.00	355.00
O-6	595.00	595.00	595.00	595.00	595.00	595.00	595.00	595.00	595.00	595.00	595.00	595.00	595.00		
O-5	595.00	595.00	595.00	595.00	595.00	595.00	595.00	595.00	595.00	595.00	595.00	595.00	595.00		
O-4	365.00	365.00	365.00	405.00	595.00										
O-3	355.00	365.00	365.00	390.00	595.00										
O-2	235.00	235.00	235.00	235.00	235.00	235.00	235.00	355.00							
O-1	175.00	175.00	175.00	175.00	175.00	175.00	355.00								

Source: Defense Finance and Accounting Office

Aviation Career Incentive Pay

Phase I	
Years of Aviation Service	Monthly Amount
2 or less	\$125
Over 2	\$156
Over 3	\$188
Over 4	\$206
Over 6	\$650
Phase II	
Years of Service as an Officer	Monthly Amount
Over 18	\$585
Over 20	\$495
Over 22	\$385
Over 25	\$250

Hazardous Duty Incentive Pay

E-7 to E-9	\$200
E-6	\$175
E-5	\$150
E-4	\$125
E-1 to E-3	\$110
W-4 to W-5	\$250
W-3	\$175
W-2	\$150
W-1	\$125
O-7 to O-10	\$110
O-5 to O-6	\$250
O-4	\$225
O-3	\$175
O-2	\$150
O-1	\$125

1995 General Schedule Pay Scale (as of Jan. 1, 1995) Within-grade Step Increases

	One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten
GS-1	12,141	12,546	12,949	13,352	13,757	13,994	14,391	14,793	14,811	15,183
GS-2	13,650	13,975	14,428	14,811	14,974	15,414	15,854	16,294	16,734	17,174
GS-3	14,895	15,392	15,889	16,386	16,883	17,380	17,877	18,374	18,871	19,368
GS-4	16,721	17,278	17,835	18,392	18,949	19,506	20,063	20,620	21,177	21,734
GS-5	18,707	19,331	19,955	20,579	21,203	21,827	22,451	23,075	23,699	24,323
GS-6	20,852	21,547	22,242	22,937	23,632	24,327	25,022	25,717	26,412	27,107
GS-7	23,171	23,943	24,715	25,487	26,259	27,031	27,803	28,575	29,347	30,119
GS-8	25,662	26,517	27,372	28,227	29,082	29,937	30,792	31,647	32,502	33,357
GS-9	28,345	29,290	30,235	31,180	32,125	33,070	34,015	34,960	35,905	36,850
GS-10	31,215	32,256	33,297	34,338	35,379	36,420	37,461	38,502	39,543	40,584
GS-11	34,295	35,438	36,581	37,724	38,867	40,010	41,153	42,296	43,439	44,582
GS-12	41,104	42,474	43,844	45,214	46,584	47,954	49,324	50,694	52,064	53,434
GS-13	48,878	50,507	52,136	53,765	55,394	57,023	58,652	60,281	61,910	63,539
GS-14	57,760	59,685	61,610	63,535	65,460	67,385	69,310	71,235	73,160	75,085
GS-15	67,941	70,206	72,471	74,736	77,001	79,266	81,531	83,796	86,061	88,326

The above basic salary rates cover General Schedule (GS) and General Manager (GM) employees who are stationed outside the continental United States (CONUS) and who are not covered by a special salary schedule. GS and GM employees within CONUS are covered by the highest of a locality schedule, a special salary schedule or a law enforcement schedule (if applicable).

Source: Civilian Personnel Management Service

All Hands FY95 Monthly Basic Pay Chart*

Cumulative Months of Service																Proposed Basic Allowance for Quarter Dependents			
Pay Grade	Under 2	Over 2	Over 3	Over 4	Over 6	Over 8	Over 10	Over 12	Over 14	Over 16	Over 18	Over 20	Over 22	Over 24	Over 26	Dependents			
																Without Full	Partial With		
Enlisted Members																			
E-9	As a senior enlisted advisor of a military service, E-9 basic pay is 4008.60.					2561.70	2619.00	2678.40	2739.90	2801.40	2855.70	3005.40	3122.40	3297.90		454.80	18.60	599.40	
E-8	0.00	0.00	0.00	0.00	0.00	2148.00	2209.80	2268.00	2326.80	2388.30	2442.90	2502.90	2649.90	2768.10	2945.10		417.60	15.30	552.60
E-7	1499.70	1619.10	1678.80	1737.90	1797.00	1854.30	1913.70	1973.40	2062.50	2121.00	2179.80	2208.30	2356.50	2473.80	2649.90		356.40	12.00	513.00
E-6	1290.30	1406.40	1464.90	1527.30	1584.60	1641.60	1701.90	1789.50	1845.60	1905.30	1934.10	1934.10	1934.10	1934.10	1934.10		322.80	9.90	474.30
E-5	1132.20	1232.40	1292.40	1348.50	1437.30	1495.80	1554.90	1612.20	1641.60	1641.60	1641.60	1641.60	1641.60	1641.60	1641.60		297.60	8.70	426.30
E-4	1056.00	1115.40	1181.10	1272.00	1322.40	1322.40	1322.40	1322.40	1322.40	1322.40	1322.40	1322.40	1322.40	1322.40	1322.40		258.90	8.10	370.80
E-3	995.10	1049.70	1091.40	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60	1134.60		254.10	7.80	345.00
E-2	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60	957.60		206.40	7.20	328.50
E-1	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40	854.40		183.90	6.90	328.50
E-1	790.20	(Less than 4 mos. active duty)														183.90	6.90	328.50	
Midm.	558.04																		
Warrant Officers																			
W-5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3757.80	3900.30	4013.10	4182.00		623.40	25.20	681.30
W-4	2022.00	2362.50	2362.50	2416.50	2526.30	2637.60	2748.30	2940.60	3077.10	3185.10	3270.30	3375.90	3489.00	3597.60	3760.80		553.80	25.20	624.60
W-3	2001.30	2170.80	2170.30	2199.00	2224.50	2387.40	2526.30	2608.08	2691.60	2772.00	2858.10	2969.70	3077.10	3077.10	3185.10		465.30	20.70	572.40
W-2	1752.90	1896.30	1896.30	1951.50	2058.00	2170.80	2253.30	2335.80	2416.50	2501.80	2583.30	2664.60	2772.00	2772.00	2772.00		413.10	15.90	526.50
W-1	1460.10	1674.30	1674.30	1814.10	1896.30	1977.60	2058.00	2143.20	2224.50	2307.30	2387.40	2472.90	2472.90	2472.90	2472.90		345.90	13.80	455.40
Commissioned Officers																			
O-10	6978.30	7223.70	7223.70	7223.70	7223.70	7501.20	7501.20	7916.70	7916.70	8482.80	8482.80	9051.00	9051.00	9051.00	9614.70		749.40	50.70	922.50
O-9	6184.50	6346.50	6481.80	6481.80	6481.80	6646.50	6646.50	6923.10	6923.10	7501.20	7501.20	7916.70	7916.70	7916.70	8482.80		749.40	50.70	922.50
O-8	5601.60	5769.60	5906.40	5906.40	5906.40	6346.50	6346.50	6646.50	6646.50	6923.10	7223.70	7501.20	7686.00	7686.00	7686.00		749.40	50.70	922.50
O-7	4654.50	4971.00	4971.00	4971.00	5193.90	5193.90	5494.80	5494.80	5769.60	6346.50	6783.00	6783.00	6783.00	6783.00	6783.00		749.40	50.70	922.50
O-6	3449.70	3790.20	4038.60	4038.60	4038.60	4038.60	4038.60	4038.60	4176.00	4836.30	5082.90	5193.90	5494.80	5680.80	5959.50		687.60	39.60	830.70
O-5	2759.10	3239.70	3463.80	3463.80	3463.80	3463.80	3568.50	3760.80	4012.80	4313.10	4560.00	4698.60	4862.70	4862.70	4862.70		662.10	33.00	800.70
O-4	2325.60	2832.00	3021.00	3021.00	3077.10	3212.70	3432.00	3624.90	3790.20	3956.70	4065.60	4065.60	4065.60	4065.60	4065.60		613.80	26.70	705.90
O-3	2161.20	2416.50	2583.30	2858.10	2994.90	3102.30	3270.30	3432.00	3516.30	3516.30	3516.30	3516.30	3516.30	3516.30	3516.30		429.00	22.20	584.10
O-2	1884.60	2058.00	2472.90	2556.00	2608.80	2608.80	2608.80	2608.80	2608.80	2608.80	2608.80	2608.80	2608.80	2608.80	2608.80		390.00	17.70	498.90
O-1	1636.20	1703.10	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00	2058.00		328.50	13.20	445.80
Officers With More Than Four Years Active Duty as Enlisted or Warrant																			
O-3E	0.00	0.00	0.00	2858.10	2994.90	3102.30	3270.30	3432.00	3568.50	3568.50	3568.50	3568.50	3568.50	3568.50	3568.50		506.40	22.95	627.60
O-2E	0.00	0.00	0.00	2556.00	2608.80	2691.60	2832.00	2940.60	3021.00	3021.00	3021.00	3021.00	3021.00	3021.00	3021.00		451.50	17.70	566.40
O-1E	0.00	0.00	0.00	2058.00	2199.00	2280.00	2362.50	2444.40	2556.00	2556.00	2556.00	2556.00	2556.00	2556.00	2556.00		388.20	13.20	523.20


































1995 Basic Allowance for Subsistence

Enlisted	E-1 < Four Months	All Others
Rations in kind not available	\$7.26 per day	\$ 7.87 per day
On leave or authorized to mess separately	\$6.44 per day	\$ 6.95 per day
Emergency conditions/no govt. mess avail.	\$9.63 per day	\$10.42 per day

Officers (Incl. commissioned, warrants and aviation cadets) \$116.16 per month

Rank insignia

Rank Insignia of Navy Commissioned Officers (O)

Paygrade/Rank	Caps, shoulder, collar	Shoulder boards	Sleeve
O-1 Ensign	gold 		
O-2 Lieutenant Junior Grade	silver 		
O-3 Lieutenant	silver 		
O-4 Lieutenant Commander	gold 		
O-5 Commander	silver 		
O-6 Captain	silver 		
O-7 Rear Admiral (Lower Half)	silver 		
O-8 Rear Admiral (Upper Half)	silver 		
O-9 Vice Admiral	silver 		
O-10 Admiral	silver 		
O-11 Fleet Admiral	silver 		

Line / Staff / Warrant Officer Corps Devices



Line



Supply Corps



Medical Corps



Christian Chaplain



Jewish Chaplain



Civil Engineer



Dental Corps



Medical Service Corps



Nurse Corps



Law Community



Judge Advocate General Corps



Boatswain



Ordnance Technician



Ship's Clerk



Rank Insignia of Navy Warrant Officer (W)

Paygrade/Rank	Caps, shoulder, collar	Shoulder boards	Sleeve
W-1 Chief Warrant Officer			
W-2 Chief Warrant Officer			
W-3 Chief Warrant Officer			
W-4 Chief Warrant Officer			

Rank Insignia of Navy Enlisted People (E)

Paygrade/Rank	Hat and collar	Sleeve
E-1 Seaman Recruit		
E-2 Seaman Apprentice		
E-3 Seaman		
E-4 Petty Officer Third Class		
E-5 Petty Officer Second Class		
E-6 Petty Officer First Class		
E-7 Chief Petty Officer		
E-8 Senior Chief Petty Officer		
E-9 Master Chief Petty Officer		
E-9 Master Chief Petty Officer Of The Navy		

Line / Staff / Warrant Officer Corps Devices



Cryptologic
Technician



Engineering/
Nuclear
Power
Technician



Repair
Technician



Security
Technician



Data
Processing
Technician



Diving
Officer



Air Traffic
Control
Technician



Aerographer



Aviation
Boatswain



Aviation
Electronics
Technician



Aviation
Ordnance
Technician

Navy Enlisted Ratings

General Seamanship



BM
Boatswain's Mate



SM
Signalman



GS
Gas Turbine System Technician
(used at pay grade E-9 only)
GSE (Electrical)
GSM (Mechanical)



IC
Interior Communications Electrician



MM
Machinist's Mate

Ship's Maintenance



HT
Hull Maintenance Technician



IM
Instrumentman



MR
Machinery Repairman



ML
Molder



OM
Opticalman



PM
Patternmaker



DC
Damage Controlman

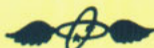
Aviation Maintenance/ Weapons



PR
Aircrew Survival Equipmentman



AE
Aviation Electrician's Mate



AT
Aviation Electronics Technician



AD
Aviation Machinist's Mate



AZ
Aviation Maintenance Administrationman



AO
Aviation Ordnanceman



AM
Aviation Structural Mechanic
(used at paygrade E-8 only)
AME (Safety Equipment)
AMH (Hydraulics)
AMS (Structures)

Aviation Ground Support



AB
Aviation Boatswain's Mate
(used at pay grade E-9 only)
ABE (Launching and Recovery Equipment)
ABF (Fuels)
ABH (Aircraft Handling)



AS
Aviation Support Equipment Technician

Air Traffic Control



AC
Air Traffic Controller

Weapons Control



ET
Electronics Technician



FC
Fire Controlman



FT
Fire Control Technician

Ordnance Systems



GM
Gunner's Mate
(used at pay grade E-7 and above)
GMG (Guns)
GMM (Missiles)



MN
Mineman



MT
Missile Technician



TM
Torpedoman's Mate



WT
Weapons Technician

Sensor Operations



EW
Electronics Warfare Technician



OT

Ocean Systems Technician
(used at paygrade E-9 only)

OTA (Analyst)

OTM (Maintainer)



ST

Sonar Technician

STG (Surface)

STS (Submarine)

Data Systems



DP

Data Processing Technician



DS

Data Systems Technician

Construction



BU

Builder

(becomes CUCM
at pay grade E-9)



CE

Construction Electrician
(becomes UCCM
at pay grade E-9)



CM

Construction Mechanic
(becomes EQCM
at pay grade E-9)



EA

Engineering Aide
(becomes CUCM
at pay grade E-9)



EO

Equipment Operator
(becomes EQCM
at pay grade E-9)



SW

Steelworker
(becomes CUCM
at pay grade E-9)



UT

Utilitiesman
(becomes UCCM
at pay grade E-9)

Health Care



DT

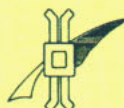
Dental Technician



HM

Hospital Corpsman

Administration



LN

Legalman



NC

Navy Counselor



PN

Personnelman



PC

Postal Clerk



YN

Yeoman



RP

Religious Program
Specialist

Logistics



AK

Aviation Storekeeper



DK

Disbursing Clerk



MS

Mess Management
Specialist



SH

Ship's Serviceman



SK

Storekeeper

Media



DM

Illustrator Draftsman



JO

Journalist



LI

Lithographer



PH

Photographer's Mate

Musician



MU

Musician

Master-at-Arms



MA

Master-at-Arms

Cryptography



CT

Cryptologic Technician
CTA (Administrative)
CTI (Interpretive)
CTM (Maintenance)
CTO (Communications)
CTR (Collection)
CTT (Technical)

Communications



RM

Radioman

Intelligence



IS

Intelligence Specialist

Meteorology



AG

Aerographer's Mate

Aviation Sensor Operations



AW

Aviation Systems
Warfare Operator



Surface Warfare Insignia



Enlisted Surface Warfare Insignia



Special Operations Insignia



Surface Warfare Dental Corps Insignia



Surface Supply Corps Insignia



Surface Warfare Medical Service Corps Insignia



Surface Warfare Nurse Corps Insignia



Surface Warfare Medical Corps Insignia



Naval Aviation Insignia



Aviation Warfare Specialist Insignia



Naval Flight Officer



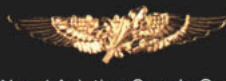
Astronaut Insignia



Naval Astronaut (NFO) Insignia



Aircrew Insignia



Naval Aviation Supply Corps



Naval Aviation Observer and Flight Meteorologist



Flight Surgeon Insignia



Aviation Experimental Psychologist and Aviation Physiologist Insignia



Flight Nurse Insignia



Naval Parachutist Insignia



Special Warfare Insignia



Basic Parachutist Insignia



Seabee Combat Warfare Specialist Insignia (Officer)



Seabee Combat Warfare Specialist Insignia (Enlisted)



Submarine Insignia (Officer)



Submarine Insignia (Enlisted)



Submarine Engineering Duty Insignia



Submarine Medical



Submarine Supply Corps



SSBN Deterrent Patrol Insignia



Deep Submergence



Submarine Combat Patrol Insignia



Diving Officer Insignia



Diving (Medical) Insignia



Master Diver Insignia



Diving Medical Technician



Scuba Diver Insignia



Second Class Diver Insignia



First Class Diver Insignia



Integrated Undersea
Surveillance System (Officer)



Integrated Undersea
Surveillance System (Enlisted)



Master Explosive
Ordnance Disposal Insignia



Senior Explosive
Ordnance Disposal Insignia



Explosive Ordnance
Disposal Insignia



Command-at-Sea Insignia



Command Ashore/
Project Manager Insignia



Craftmaster Insignia



Small Craft Insignia

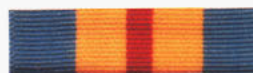
ORDER OF PRECEDENCE — U.S. NAVY



MEDAL OF HONOR



NAVY CROSS



DEFENSE
DISTINGUISHED
SERVICE MEDAL



DISTINGUISHED
SERVICE MEDAL



SILVER STAR



DEFENSE SUPERIOR
SERVICE MEDAL



LEGION OF MERIT



DISTINGUISHED FLYING
CROSS



NAVY AND MARINE
CORPS MEDAL



BRONZE STAR



PURPLE HEART



DEFENSE MERITORIOUS
SERVICE MEDAL



MERITORIOUS SERVICE
MEDAL



AIR MEDAL



JOINT SERVICE
COMMENDATION
MEDAL



NAVY COMMENDATION
MEDAL



JOINT SERVICE
ACHIEVEMENT MEDAL



NAVY ACHIEVEMENT
MEDAL



COMBAT ACTION
RIBBON



PRESIDENTIAL UNIT
CITATION



JOINT MERITORIOUS
UNIT AWARD



NAVY UNIT
COMMENDATION



MERITORIOUS UNIT
COMMENDATION



NAVY "E" RIBBON



POW MEDAL



GOOD CONDUCT
MEDAL



NAVAL RESERVE
MERITORIOUS SERVICE
MEDAL



FLEET MARINE FORCE
RIBBON



NAVY EXPEDITIONARY
MEDAL



CHINA SERVICE MEDAL



NAVY OCCUPATION
SERVICE MEDAL



NATIONAL DEFENSE
SERVICE MEDAL



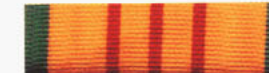
KOREAN SERVICE MEDAL



ANTARCTICA SERVICE
MEDAL



ARMED FORCES
EXPEDITIONARY MEDAL



VIETNAM SERVICE
MEDAL



SOUTHWEST ASIA
SERVICE MEDAL



HUMANITARIAN
SERVICE MEDAL



SEA SERVICE
DEPLOYMENT RIBBON



NAVY ARCTIC SERVICE
RIBBON



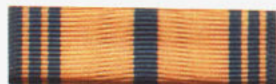
NAVAL RESERVE SEA
SERVICE RIBBON



NAVY AND MARINE
CORPS OVERSEAS
SERVICE RIBBON



**NAVY RECRUITING SERVICE
RIBBON**



**ARMED FORCES RESERVE
MEDAL**



NAVAL RESERVE MEDAL



**PHILIPPINE
PRESIDENTIAL UNIT
CITATION**



**REPUBLIC OF KOREA
PRESIDENTIAL UNIT
CITATION**



**REPUBLIC OF VIETNAM
PRESIDENTIAL UNIT
CITATION**



**REPUBLIC OF VIETNAM
GALLANTRY CROSS
UNIT CITATION**



**REPUBLIC OF VIETNAM
CIVIL ACTIONS UNIT
CITATION**



**UNITED NATIONS
SERVICE MEDAL**



**UNITED NATIONS
MEDAL**



**MULTINATIONAL FORCE
AND OBSERVERS MEDAL**



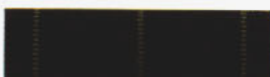
**INTER-AMERICAN
DEFENSE BOARD MEDAL**



**REPUBLIC OF VIETNAM
CAMPAIGN MEDAL**



**KUWAIT LIBERATION MEDAL
(Kingdom of Saudi Arabia)**



**EXPERT RIFLEMAN
MEDAL**



**EXPERT PISTOL SHOT
MEDAL**

DEVICES



GOLD STAR

Denotes each subsequent award of the same Navy decoration.



SILVER STAR

Worn in the same manner as the gold star, in lieu of five gold stars.



BRONZE SERVICE STAR

The bronze five-pointed service star represents participation in campaigns or operations, multiple qualification or an additional award to any of the various ribbons on which it is authorized. Also worn to denote first award of the single mission air medal after Nov. 22, 1989.



SILVER SERVICE STAR

Worn in the same manner as the bronze star, but each silver star is worn in lieu of five bronze service stars.



BRONZE OAK LEAF CLUSTER

The bronze oak leaf cluster represents second and subsequent entitlements of awards.



SILVER OAK LEAF CLUSTER

A silver oak leaf cluster is worn for the sixth, 11th, or in lieu of five bronze oak leaf clusters.



WINTERED OVER

For wintering over on the Antarctic continent, a clasp for Antarctica Service Medal, suspension ribbon and a disc for the service ribbon of bronze for first winter, gold for second winter, silver for third winter.



"V" DEVICE

The metallic bronze letter "V" is authorized for acts or service involving direct participation in combat operations.



HOURLASS

Issued for each succeeding award of the Armed Forces Reserve Medal.



EUROPE AND ASIA CLASPS

Worn on the suspension ribbon of the Navy Occupation Service Medal.



STRIKE/FLIGHT DEVICE

Bronze arabic numeral denotes the total number of strike/flight awards of the Air Medal earned subsequent to April 9, 1962.



FLEET MARINE FORCE COMBAT OPERATIONS INSIGNIA

For Navy personnel attached to fleet Marine force units participating in combat operations.

The above display represents the correct order of precedence for ribbons most likely to be worn today on the Navy uniform. Devices worn on these ribbons must be worn in a specific manner and are used to denote additional awards or participation in a specific event. For additional information about the proper order of display, placement of devices or about ribbons not shown, refer to SECNAVINST 1650.1F and U.S. Navy Uniform Regulation (NAVPERS 1566.5G).

Recruiting

"... there are jobs here – jobs for good, smart people ..."

*ADM Mike Boorda,
Chief of Naval Operations
and former seaman recruit.*



Our Navy asks a lot from its people – personal sacrifice, versatility, professional and technical prowess and readiness should a crisis arise anywhere in the world. The Navy of the '90s demands well-trained, highly qualified people to operate and maintain its technologically sophisticated ships, aircraft and equipment.

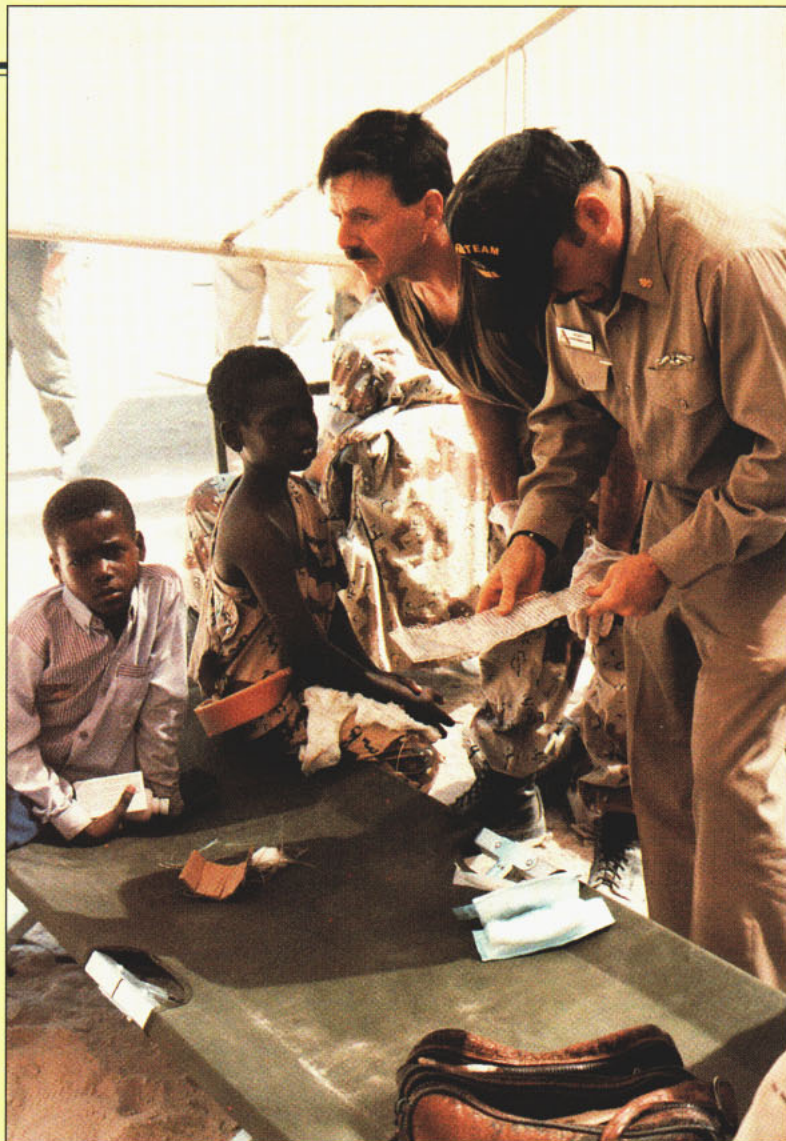
For the first time since 1950, the Navy is below 500,000 personnel and halfway to the 1999 right-size goal of 394,000.

Despite right-sizing, the Navy continues to re-enlist and promote people. This year alone the Navy will have to fill 53,000 jobs in more than 90 different career fields including aviation, electronics, computer systems, nuclear propulsion and health care.

Tomorrow's Navy continues to attract the highest quality recruits. More than 68 percent of recruits scored in the upper half of the Armed Services Qualification test last year.

Between 1989 and 1993, 469,977 Sailors and 70,390 officers were advanced. Projections for the remainder of the decade include 72,000 officer promotions, 437,000 enlisted advancements and 331,000 re-enlistments.

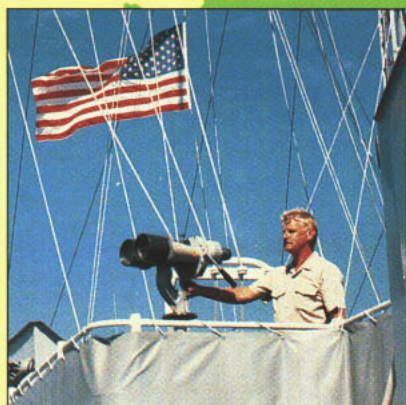
For more information, call 1-800-USA-NAVY. ‡





MAJOR WESTERN HEMISPHERE COMMANDS

- | | |
|-------------------------------|----------------------------------|
| ①-- Puget Sound, Wash. | ⑪-- New London, Ct. |
| ②-- San Francisco | ⑫-- Philadelphia |
| ③-- Long Beach, Calif. | ⑬-- Washington, D.C. |
| ④-- San Diego | ⑭-- Norfolk |
| ⑤-- Pearl Harbor | ⑮-- Charleston, S.C. |
| ⑥-- Ingleside, Texas | ⑯-- Kings Bay, Ga |
| ⑦-- Pensacola, Fla. | ⑰-- Jacksonville, Fla. |
| ⑧-- Memphis/Millington, Tenn. | ⑱-- Orlando, Fla. |
| ⑨-- Great Lakes, Ill. | ⑲-- Guantanamo Bay, Cuba |
| ⑩-- Newport, R.I. | ⑳-- Roosevelt Roads, Puerto Rico |



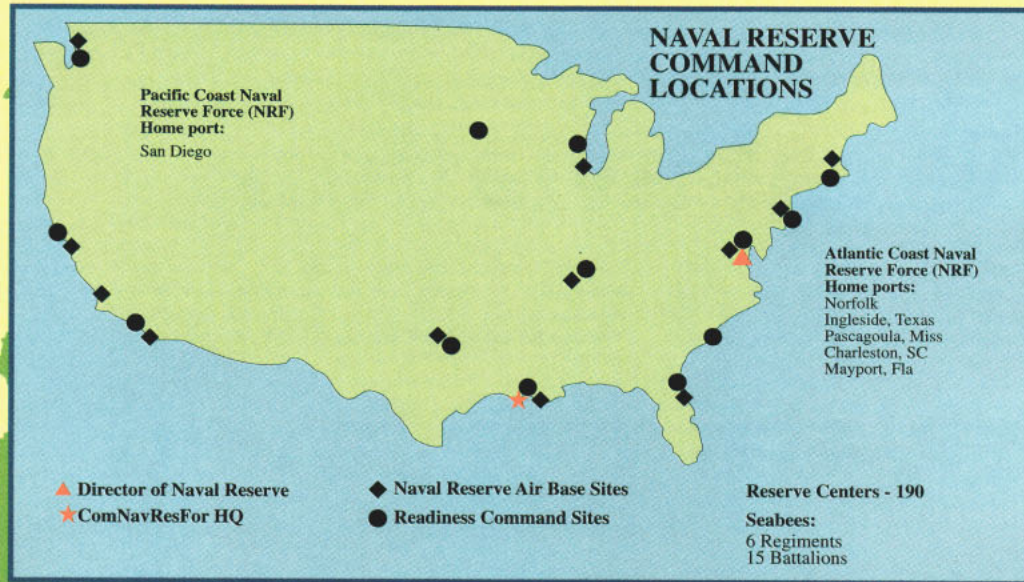
⑤
②⑤
④⑤

FLEET COMMAND AND CONTROL

- | |
|---|
| ②①-- Commander-in-Chief
U.S. Naval Forces Europe |
| ②②-- U.S. 6th Fleet, Mediterranean
Home port - Gaeta, Italy |
| ②③-- U.S. Naval Forces
Central Command -- Red Sea,
Persian Gulf and North Arabian Sea
Manama, Bahrain |
| ②④-- U.S. 7th Fleet, Western Pacific,
Indian Ocean - Forward Deployed
Yokosuka, Japan |
| ②⑤-- Commander-in-Chief
U.S. Pacific Fleet - Pearl Harbor |
| ②⑥-- U.S. 3rd Fleet, Eastern Pacific
Home port - San Diego |
| ②⑦-- Commander-in-Chief
U.S. Atlantic Fleet Norfolk
U.S. 2nd Fleet, Atlantic Ocean
Home port - Norfolk |

UNIFIED COMMANDS

- | |
|---|
| ④④-- U.S. European Command,
Stuttgart-Vaihingen, Germany. |
| ④⑤-- U.S. Pacific Command, Honolulu |
| ④⑥-- U.S. Atlantic Command, Norfolk |
| ④⑦-- U.S. Southern Command, Quarry Heights,
Republic of Panama |
| ④⑧-- U.S. Central Command, MacDill AFB, Fla. |
| ④⑨-- U.S. Space Command, Peterson AFB, Colo. |
| ⑤①-- U.S. Transportation Command, Scott AFB, Ill |
| ⑤②-- U.S. Special Operations Command, MacDill AFB, Fla |
| ⑤③-- U.S. Strategic Command, Offutt AFB, Neb. |



MAJOR WESTERN PACIFIC COMMANDS

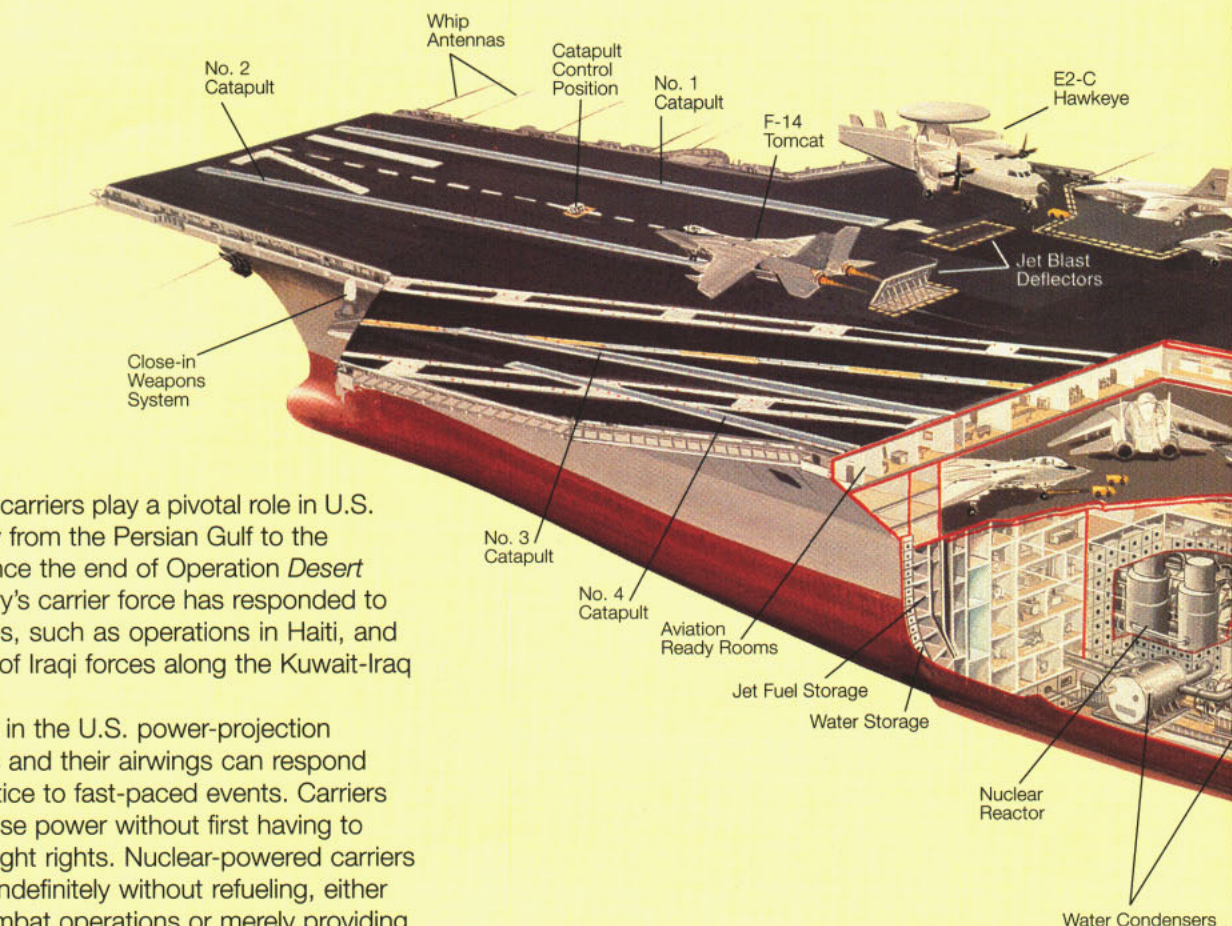
- 35-- U.S. Naval Forces, Korea
Fleet Activities, Chinhae, Korea
- 36-- Naval Air Facility, Misawa, Japan
- 37-- Naval Air Facility, Atsugi, Japan
- 38-- U.S. Fleet Activities, Yokosuka, Japan
- 39-- U.S. Fleet Activities, Sasebo, Japan
- 40-- U.S. Fleet Activities, Okinawa, Japan
- 41-- U.S. Naval Forces Marianas, Guam
Naval Air Station Agana
Naval Air Station Guam
- 42-- U.S. Naval Logistics Group,
Western Pacific - Singapore
- 43-- Naval Support Facility, Diego Garcia



MAJOR EUROPEAN COMMANDS

- 28-- U.S. Naval Forces,
Europe, London, U.K.
- 29-- Naval Support Activity;
Commander, Fleet
Air Mediterranean
Naples, Italy
- 30-- Naval Station
Rota, Spain
- 31-- Naval Air Station
Sigonella, Sicily
- 32-- Naval Support Activity
LaMaddalena, Sicily
- 33-- Naval Support Activity
Souda Bay, Crete
- 33-- Fleet Air Keflavik/
Naval Air Station
Keflavik, Iceland

Naval aviation: forward thinking, forward deployed

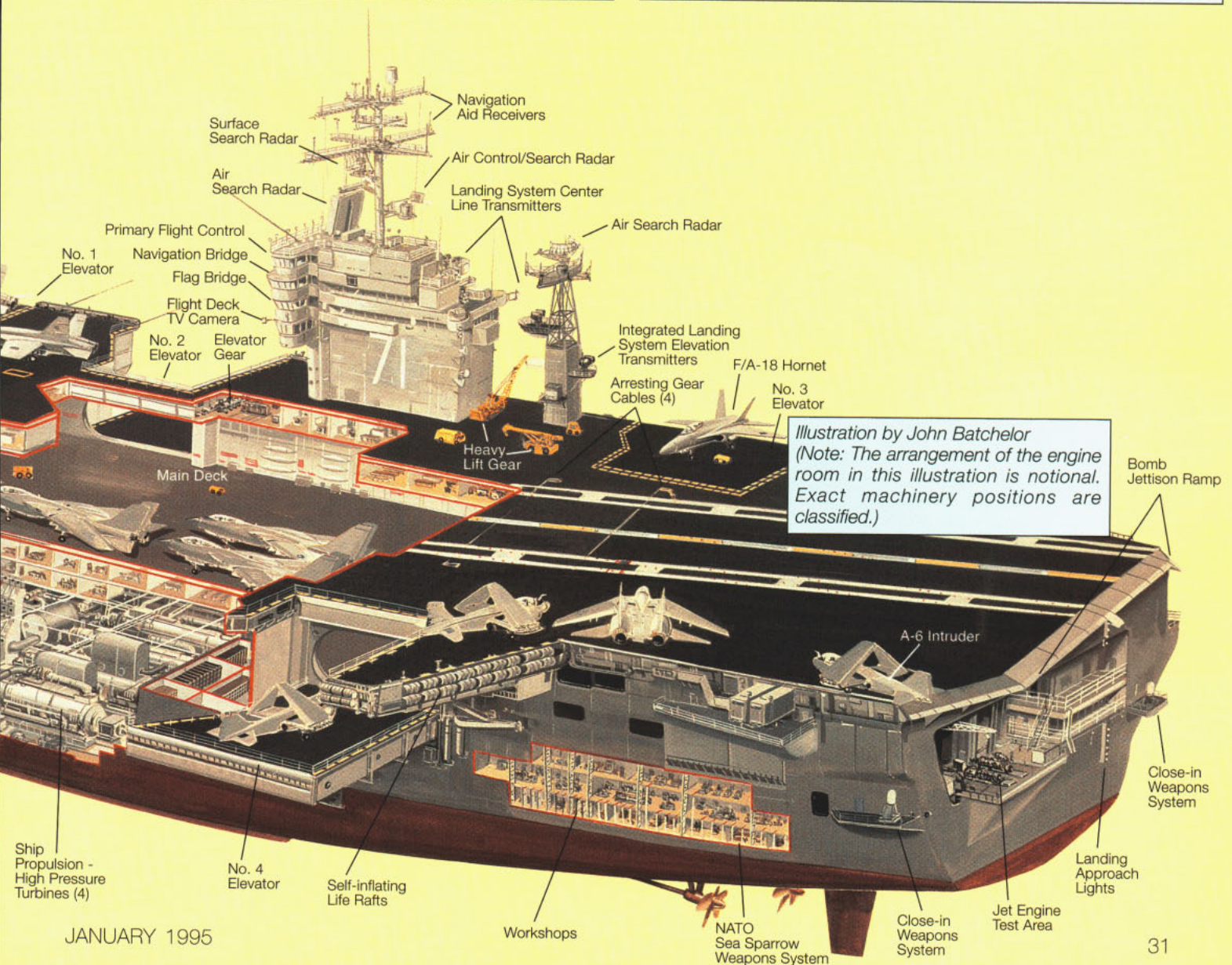


America's aircraft carriers play a pivotal role in U.S. security strategy from the Persian Gulf to the Adriatic Sea. Since the end of Operation *Desert Storm* in 1991, the Navy's carrier force has responded to numerous contingencies, such as operations in Haiti, and countering the buildup of Iraqi forces along the Kuwait-Iraq border.

As a crucial element in the U.S. power-projection arsenal, aircraft carriers and their airwings can respond swiftly and on short notice to fast-paced events. Carriers project sustained, precise power without first having to secure basing or overflight rights. Nuclear-powered carriers can remain on station indefinitely without refueling, either participating in joint combat operations or merely providing a visible deterrent to would-be adversaries.



Strike aircraft: 50+ Weapons; more than 4,000 general purpose and precision guided weapons
Speed: 30+ knots
Endurance: Virtually unlimited (greater than 20 years)
Length: overall 1,092 feet
Max. width: (flight deck) 252 feet
Draft: (combat load) 39 feet
Propulsion: 4 steam turbines; 200,000+ shaft horse power
Reactors: 2 pressurized A4W (Westinghouse)
Crew: (ship/airwing) 6,023
Area of flight deck: 4.5 acres
Meals served daily: 18,000
Weight of each anchor: 60,000 pounds
Fresh water production: 400,000 gallons daily



Naval Ships

Aircraft Carriers

MISSION: The centerpieces of the Navy's offensive and defensive strategy, carriers support and operate aircraft that engage in attacks on airborne, afloat and ashore targets which threaten our use of the sea. These vessels also engage in sustained operations in support of other forces.



Kitty Hawk (CV 63) Class 3 ships

Displacement: 80,800 tons
Length: 1,046 ft.
Beam: 130 ft.
Flight Deck Width: 252 ft.
Max Speed: 30+ knots
Complement: 3,150 ship's company
2,480 air wing
Aircraft: Approximately 85



John F. Kennedy (CV 67) Class 1 ship

Displacement: 82,000 tons
Length: 1,052 ft.
Beam: 130 ft.
Flight Deck Width: 252 ft.
Max Speed: 30+ knots
Complement: 3,117 ship's company
2,480 air wing
Aircraft: Approximately 85



Enterprise (CVN 65) Class 1 ship

Displacement: 89,600 tons
Length: 1,040 ft.
Beam: 133 ft.
Flight Deck Width: 252 ft.
Max Speed: 30+ knots
Complement: 3,350 ship's company
2,480 air wing
Aircraft: Approximately 85



Nimitz (CVN 68) Class 6 ships

Displacement: 91,487 tons
(CVN-71: 96,358 tons)
Length: 1,040 ft.
Beam: 134 ft.
Flight Deck Width: 252 ft.
Max Speed: 30+ knots
Complement: 3,200 ship's company
2,480 air wing
Aircraft: Approximately 85



Forrestal (CV 59) Class 1 ship

Displacement: 75,900 tons
Length: 1,063 ft.
Beam: 129 ft.
Flight Deck Width: 252 ft.
Max Speed: 30+ knots
Complement: 3,019 ship's company
2,480 air wing
Aircraft: Approximately 75

Surface Warfare Ships

MISSION: Primary surface-borne combatants conduct at-sea battle operations against surface, air and sub-surface enemies, protect sea lanes and serve as front-line support to aircraft carriers in a battle group.

Frigates

Anti-submarine warfare combatants protect shipping lanes for amphibious expeditionary forces, as well as underway replenishment groups and merchant convoys.



Oliver Hazard Perry (FFG 7) Class 51 ships

Displacement: 4,100 tons
Length: 445 ft. (453 with LAMPS III mod)
Beam: 45 ft.
Max Speed: 29 knots
Complement: 200
Aircraft: 2 - SH-60B (LAMPS MKIII) in FFG 8, 36-61; 1 - SH-2F (LAMPS MKI) in FFG 7, 9-35 [FFGs 28-35 to be converted for LAMPS MKIII]

Cruisers

Multi-mission surface combatants with extensive warfare capability support battle groups and amphibious forces. Also serve as flagship of surface action groups

and can operate independently. Extensive warfighting capability. *Ticonderoga* and *Virginia*-classes are also equipped with Tomahawk ASM/LAM for long-range strike capability.



Ticonderoga (CG 47) Class 27 ships

Displacement: 9,600 tons
Length: 567 ft.
Beam: 55 ft.
Max Speed: 30+ knots
Complement: 364
Aircraft: 2 - SH-2 (LAMPS) in CG 47-48;
2 - SH-60 (LAMPS III) in CG 49 & later



Virginia (CGN 38) Class 2 ships

Displacement: 11,000 tons
Length: 585 ft.
Beam: 63 ft.
Max Speed: 30+ knots
Complement: 578



California (CGN 36) Class 2 ships

Displacement: 10,450 tons
Length: 596 ft.
Beam: 61 ft.
Max Speed: 30+ knots
Complement: 584



Belknap (CG 26) Class 1 ship

Displacement: 7,930 tons
Length: 547 ft.
Beam: 55 ft.

Ballistic Missile Submarines

MISSION: Deterrence of war has been the sole mission and fundamental reason for the existence of the fleet ballistic missile submarine since its inception in 1960. Among the Navy's highest priority programs, ballistic missile submarines are the cornerstone of the national security policy functioning as the most survivable and enduring leg of the strategic deterrent triad.



Ohio (SSBN 726) Class 15 ships

Displacement (submerged): 18,700 tons
Length: 560 ft.
Beam: 42 ft.
Max Speed: 20+ knots
Complement: 165

Benjamin Franklin (SSN 640) Class 2 ships

Displacement (submerged): 8,250 tons
Length: 425 ft.
Beam: 33 ft.
Max Speed: 20+ knots
Complement: 139



Max Speed: 32 knots
Complement: 477
Aircraft: 1 - SH-2F (LAMPS)
[CG 26: SH-3]



Leahy (CG 16) Class 1 ship
Displacement: 7,800 tons
Length: 533 ft.
Beam: 55 ft.
Max Speed: 33+ knots
Complement: 455

Destroyers

Support battle, surface action, amphibious, and replenishment groups. Destroyers are primarily used for anti-submarine warfare while guided-missile destroyers are multi-mission surface combatants.



Arleigh Burke (DDG 51) Class 6 ships
Displacement: 8,300 tons
Length: 466 ft.
Beam: 59 ft.
Max Speed: 31 knots
Complement: 32



Kidd (DDG 993) Class 4 ships
Displacement: 8,300 tons
Length: 563 ft.

Beam: 55 ft.
Max Speed: 33 knots
Complement: 333
Aircraft: 1 SH-2F (LAMPS)



Spruance (DD 963) Class 31 ships
Displacement: 7,865 tons
Length: 563 ft.
Beam: 55 ft.
Max Speed: 33 knots
Complement: 334
Aircraft: 2 SH-60 (LAMPS III)

Mobile Combat Logistics Force

MISSION: Provide fuel, provisions and ammunition to combatant ships at sea via underway and vertical replenishment. These ships are an integral part of carrier battle groups as fuel, ammunition and stores reservoirs.

Fast Combat Support

Redistribute petroleum products, ammunition, and stores from shuttle ships to carrier battle groups through connected and vertical replenishment.



Sacramento (AOE 1) Class 4 ships
Displacement: 53,000 tons
Length: 793 ft.
Beam: 107 ft.
Max Speed: 26 knots
Complement: 615
Aircraft: 2 CH-46 Sea Knights

Replenishment Oiler

Deliver petroleum and munitions simultaneously to

carrier battle groups using both connected and vertical replenishment.



Wichita (AOR 1) Class 4 ships
Displacement: 38,100 tons
Length: 659 ft.
Beam: 96 ft.
Max Speed: 20 knots
Complement: 460

Ammunition

Deliver ammunition and stores, either independently or with other combat logistic ships, to combatants and/or battle group station ships using both connected and vertical replenishment.



Kilauea (AE 26) Class 8 ships
Displacement: 18,088 tons
Length: 564 ft.
Beam: 81 ft.
Max Speed: 20+ knots
Complement: 410
Aircraft: 2 CH-46 Sea Knights

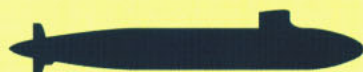


Suribachi (AE 21) Class 2 ships
Displacement: 15,500 tons
Length: 512 ft.
Beam: 72 ft.
Max Speed: 20+ knots
Complement: 390

Nitro (AE 23) Class 1 ship
Displacement: 15,500 tons
Length: 512 ft.
Beam: 72 ft.
Max Speed: 20+ knots
Complement: 390

Attack Submarines

MISSION: Destroy enemy ships, primarily submarines, in order to prohibit the employment of such forces against the United States or allied ships.



Seawolf (SSN 21) Class 1 ship
Displacement: 7,600 tons
Length: 300 ft.
Beam: 29 ft.
Max Speed: 20+ knots
Complement: 100



Los Angeles (SSN 688) Class 55 ships
Displacement (submerged): 6,900 tons
Length: 360 ft.
Beam: 33 ft.
Max Speed: 20+ knots
Complement: 142



Narwhal (SSN 671) Class 1 ship
Displacement (submerged): 5,350 tons
Length: 314 ft.
Beam: 38 ft.
Max Speed: 20+ knots
Complement: 141



Sturgeon (SSN 637) Class 27 ships
Displacement (submerged): 4,640 tons
Length: 292 ft.
Beam: 32 ft.
Max Speed: 20+ knots
Complement: 107

Permit (SSN 594) Class 1 ship
Displacement (submerged): 4,200 tons
Length: 292 ft.
Beam: 32 ft.
Max Speed: 20+ knots
Complement: 143

AEGIS DESTROYERS

are the key

to the Navy's anti air, anti-ship, anti-submarine, and strike operations from the sea. Twenty-nine **Arleigh Burke** (DDG-51)-class AEGIS destroyers have been ordered through 1994 and current plans envision a total force of some 60 DDG-51s. They will join the 27 **Ticonderoga** (CG-47)-class AEGIS cruisers that are now in the fleet. Starting with DDG-79, new AEGIS destroyers entering the fleet will be Flight IIA ships with the following upgrades and changes: hangars and facilities for two multi-purpose armed helicopters, fiber-optic data multiplex system, and the Kingfisher modification to the SQS-53 sonar for mine detection and avoidance.

DDG-51 **Arleigh Burke**-Class AEGIS Destroyer

The DDG-51 guided missile destroyer will be the centerpiece of U.S. naval surface forces well into the 21st century.

CG-47 **Ticonderoga**-Class AEGIS Cruiser

The first class of AEGIS warships built by the U.S. Navy. *Ticonderoga*-class cruisers proved their combat effectiveness in the Gulf War.

Arleigh Burke (DDG-51) Class Flight IIA Characteristics

Displacement: 9,195 tons (full load)
 Length: 509 feet 6 inches
 Beam: 66 feet 11 inches
 Draft: 30 feet 7 inches (navigation)
 Propulsion: 4 gas turbines, 100,000 shaft horsepower, 2 shafts
 Speed: 31+ knots
 Range: More than 4,400 nautical miles at 20 knots
 Manning: 383 (32 officers, 251 enlisted; includes helicopter detachment)
 Helicopters: 2 LAMPS Mk III
 Missiles: 1 64-cell and 1 32-cell Mk 41 VLS (96 total missiles)
 Radars: AN/SPY-1D multi-function
 AN/SPS-67(V)3 surface search
 AN/SPS-64 navigation
 Sonar: AN/SQS-53C bow-mounted
 Guns: One 5-inch 54-cal Mk 45 dual-purpose gun
 Two 20-mm Mk 15 Phalanx Close-In Weapon
 Systems
 Fire Control: AEGIS Weapon System
 3 Mk 99 illuminators with AN/SPG-62 radar
 6 12.75-inch torpedo tubes (2 triple mounts)
 Builders: Bath Iron Works, Bath, Maine
 Litton/Ingalls Shipbuilding, Pascagoula, Mississippi

LAMPS Mk III Light Airborne Multi-Purpose System

The SH-60B LAMPS Mk III ship/helicopter system extends the tactical reach and increases the effectiveness of the AEGIS warship. The LAMPS helicopter can launch torpedoes or air-to-surface missiles against enemy targets.



Penguin/Hellfire Missiles

Penguin is a short-range, anti-ship missile that can be launched by the SH-60B LAMPS Mk III helicopter. It is a "fire-and-forget" missile with advanced guidance features including indirect flight paths to its intended target and an infra-red (IR) guidance system.



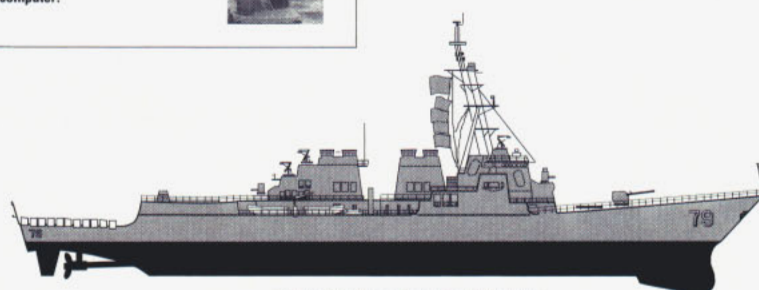
Tomahawk

Tomahawk cruise missiles are a family of long-range weapons developed to strike land targets and surface ships. Both the Tomahawk Land-Attack Missile (TLAM) and Tomahawk Anti-Ship Missile (TASM) carry 1,000-pound high explosive warheads. Newer models of the TLAM missile can carry either a unitary high explosive warhead or a submunitions warhead comprising 166 bomblets for attacking multiple "soft" targets.



Mk 15 Close-In Weapon System (CIWS)

The Phalanx CIWS is a self-contained, rapid-firing gun system that can detect and destroy anti-ship missiles that have penetrated other ship defense systems. The six-barrel Gatling gun has a firing rate of 3,000 rounds per minute. Target engagement is performed automatically by a high-speed computer.



Flight IIA DDG-51 **Arleigh Burke**-class AEGIS Destroyer

ALL HANDS

ANCE FROM THE SEA

SPY-1 Radar

The heart of the AEGIS Weapon System in the Arleigh Burke destroyers is the SPY-1D multi-function, phased-array (fixed-antenna) radar.



SM-2 Standard Missile

The Navy's Standard Missile SM-2 — used with the AEGIS weapon system — provides naval forces with a highly effective defense against enemy aircraft and cruise missiles. The missile also has a limited capability against surface ships.

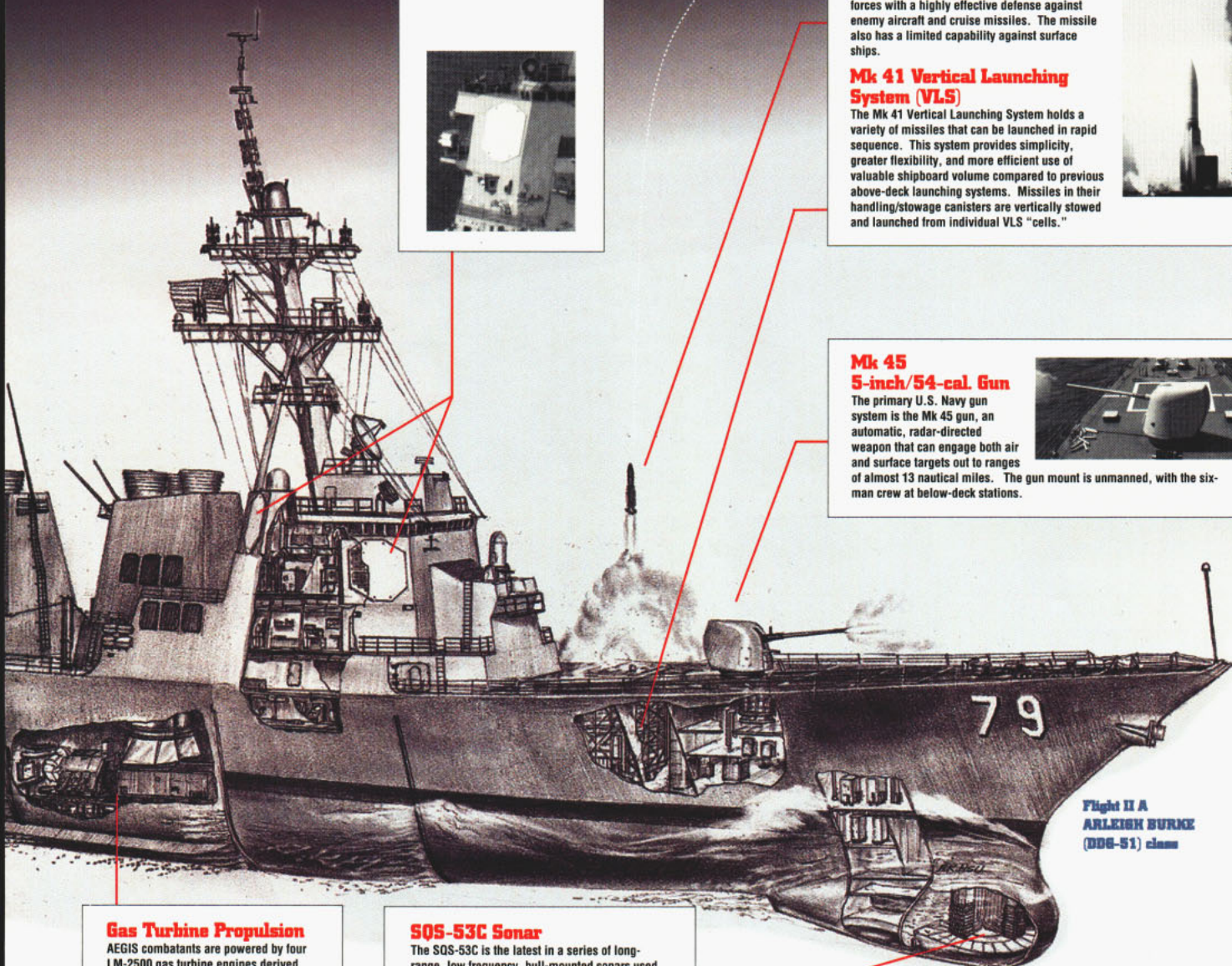


Mk 41 Vertical Launching System (VLS)

The Mk 41 Vertical Launching System holds a variety of missiles that can be launched in rapid sequence. This system provides simplicity, greater flexibility, and more efficient use of valuable shipboard volume compared to previous above-deck launching systems. Missiles in their handling/stowage canisters are vertically stowed and launched from individual VLS "cells."

Mk 45 5-inch/54-cal. Gun

The primary U.S. Navy gun system is the Mk 45 gun, an automatic, radar-directed weapon that can engage both air and surface targets out to ranges of almost 13 nautical miles. The gun mount is unmanned, with the six-man crew at below-deck stations.



Gas Turbine Propulsion

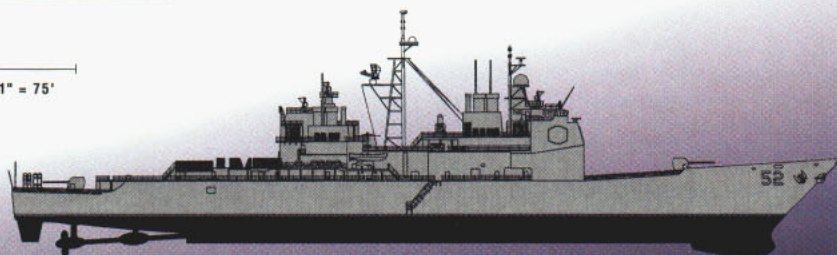
AEGIS combatants are powered by four LM-2500 gas turbine engines derived from the TF39 commercial turbofan aircraft engine. Ship speed and direction are changed by altering the pitch of individual propeller blades rather than using complex reversing gears.

SQS-53C Sonar

The SQS-53C is the latest in a series of long-range, low frequency, hull-mounted sonars used by U.S. surface warships to detect and track submarines. The SQS-53C is being further upgraded to enhance its shallow-water capabilities and to allow its use for mine detection and avoidance.

Flight II A
ARLEIGH BURKE
(DDG-51) class

1" = 75'



Naval Ships

Amphibious Warfare Ships

MISSION: Carry assault troops and equipment to enemy beaches and serve as combat support platforms for these forces.

Assault Ships

Transport and land assault forces ashore by use of Landing Craft Air Cushion (LCAC), conventional landing craft, and helicopters.

Helicopter, Landing Platform - Amphibious Assault



Iwo Jima (LPH 2) Class	3 ships
Displacement:	18,000 tons
Length:	602 ft.
Beam:	84 ft.
Flight Deck Width:	104 ft.
Max Speed:	23 knots
Complement:	685 (crew) 2,000 (troops)

Helicopter, Dock Landing - Multipurpose Assault



Wasp (LHD 1) Class	3 ships
Displacement:	40,500 tons
Length:	844 ft.
Beam:	106 ft.
Max Speed:	22+ knots
Complement:	1,081 (crew); 1,875 (troops)
Aircraft:	45 - CH-46 Sea Knight; 20 - AV-8B Harrier; 9 - ASW helicopters

Helicopter, Attack Landing - General Purpose Assault



Tarawa (LHA 1) Class	5 ships
Displacement:	39,400 tons
Length:	833 ft.
Beam:	106 ft.
Max Speed:	24 knots
Complement:	940 (crew) 1,900+ (troops)
Aircraft:	9 - CH-53 Sea Stallions; 12 - CH-46 Sea Knights; 10 - AV-8B Harriers (in LHA 2-5)

Amphibious Transport, Dock

Transport and land Marines, their equipment and supplies by embarked landing craft or amphibious vehicles augmented by helicopters in amphibious assault.



Austin (LPD 4) Class	11 ships
Displacement:	17,000 tons
Length:	570 ft.
Beam:	84 ft.
Max Speed:	21 knots
Complement:	425 (crew); 900 (troops)
Aircraft:	6 - CH-46 Sea Knights

Amphibious Command

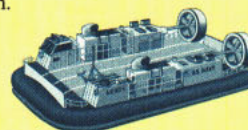
Provide amphibious command and control in major amphibious operations.



Blue Ridge (LCC 19) Class	2 ships
Displacement:	19,000 tons
Length:	634 ft.
Beam:	108 ft.
Max Speed:	23 knots
Complement:	842
Aircraft:	Utility helicopter

Landing Craft Air Cushion

Transport weapons systems, equipment, cargo, and personnel of the assault elements of the Marine Air/Ground Task Force from both ship to shore and across the beach.



LCAC	75 craft
Displacement:	151 tons
Length:	88 ft.
Beam:	47 ft.
Max Speed:	40+ knots with payload
Complement:	5

Tank Landing

Transport and land amphibious vehicles, tanks, combat vehicles, and equipment in amphibious assault.



Newport (LST 1179) Class	5 ships
Displacement:	8,450 tons





Length: 522 ft.
Beam: 69 ft.
Max Speed: 20 knots
Complement: 290(crew)
400 troops

Dock Landing

Support amphibious operations on a hostile shore via Landing Craft Air Cushion (LCAC), conventional landing craft and helicopters.



Whidbey Island (LSD 41) Class 8 ships
Displacement: 15,704 tons
Length: 609 ft.
Beam: 84 ft.
Max Speed: 20+ knots
Complement: 342 (crew)
500 (troops)



Anchorage (LSD 36) Class 5 ships

Displacement: 14,000 tons
Length: 553 ft.
Beam: 85 ft.
Max Speed: 22 knots
Complement: 358 (crew)
330 (troops)

Amphibious Cargo

Carry troops, heavy equipment and supplies to support amphibious operations.



Charleston (LKA 113) Class 10 ships
Displacement: 18,657 tons
Length: 575 ft.
Beam: 82 ft.
Max Speed: 20 knots
Complement: 387 (crew)
226 (troops)

Mine Warfare Ships

MISSION: Clear vital waterways, such as choke points, harbors, and channels, of bottom and moored

mines.

Mine Counter Measures



Avenger (MCM 1) Class 14 ships
Displacement: 1,312 tons
Length: 224 ft.
Beam: 39 ft.
Max Speed: 13.5 knots
Complement: 74

Mine Hunter



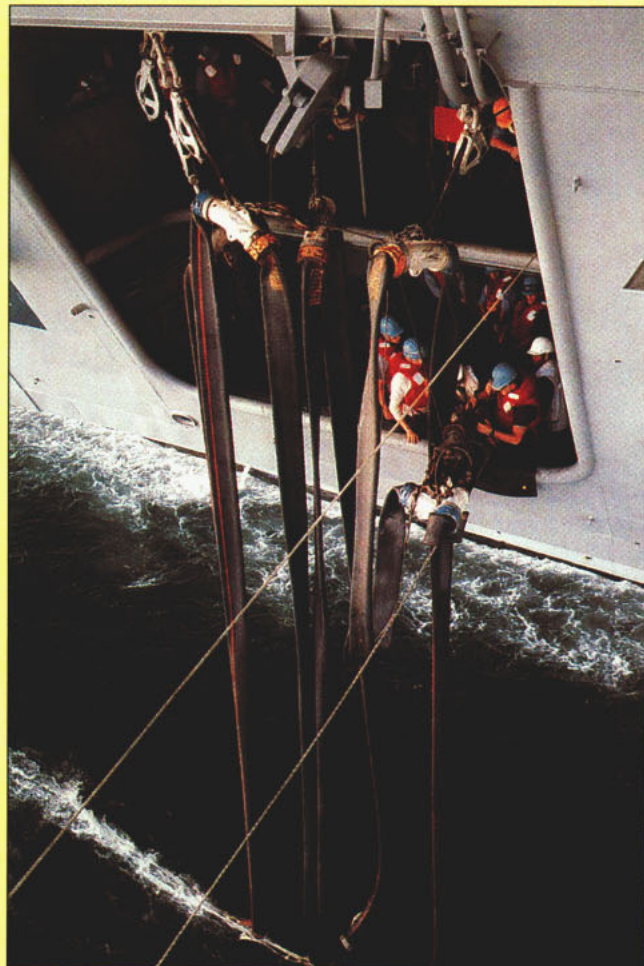
Osprey (MHC 51) Class 2 ships
Displacement: 893 tons
Length: 188 ft.
Beam: 36 ft.
Max Speed: 10 knots
Complement: 51

Coastal Patrol



Primarily provides coastal protection and interdiction. Also provides Naval Special Warfare Support, including long-range SEAL insertion/extraction and tactical swimmer operations.

Cyclone (PC 1) Class 7 ships
Displacement: 328.5 tons
Length: 170 ft.
Beam: 25 ft.
Max Speed: 35 knots
Complement: 28 (crew)
9 (special ops)



Naval Ships

Fleet Oiler

Transport bulk petroleum and lubricants from depots to underway battle group station ships, as well as combatants and support forces by alongside and vertical replenishment.



Cimarron (AO 177) Class 4 ships
 Displacement: 27,500 tons
 Length: 592 ft.
 Beam: 88 ft.
 Max Speed: 20 knots
 Complement: 215

Combat Stores

Conduct underway replenishment of refrigerated stores, dry provisions, technical spares, general stores, fleet freight, mail and personnel to operating forces by alongside or vertical replenishment.



Mars (AFS 1) Class 1 ship
 Displacement: 16,000 tons
 Length: 581 ft.
 Beam: 79 ft.
 Max Speed: 20 knots
 Complement: 438
 Aircraft: 2 CH-46 Sea Knights

Tenders

Provide mobile base facilities for maintenance and logistic support to submarines and surface combatants.



L.Y. Spear (AS 36) 2 ships
& Emory S. Land (AS 39) Classes 3 ships
 Displacement: 23,000 tons
 Length: 644 ft.
 Beam: 85 ft.
 Max Speed: 20 knots
 Complement: 605 (ASs 36 & 37)
 617 (ASs 39-41)



Simon Lake (AS 33) Class 2 ships
 Displacement: 19,934 tons (AS-33)
 21,089 tons (AS-34)
 Length: 644 ft.
 Beam: 85 ft.
 Max Speed: 20
 Complement: 601



Hunley (AS 31) Class 1 ship
 Displacement: 19,000 tons
 Length: 599 feet
 Beam: 83 feet

Max Speed: 19 knots
 Complement: 603



Fulton (AS 11) Class 1 ship
 Displacement: 16,230 tons
 Length: 530.5 ft.
 Beam: 73 ft.
 Max Speed: 15.4 knots
 Complement: 557



Yellowstone (AD 41) 4 ships
& Samuel Gompers (AD 37) Class 2 ships
 Displacement: 22,500 tons
 Length: 644 ft.
 Beam: 85 ft.
 Max Speed: 20 knots
 Complement: 1,400



Dixie (AD 14) Class 1 ship
 Displacement: 18,000 tons
 Length: 530 ft.
 Beam: 73 ft.
 Max Speed: 18.2 knots
 Complement: 872

Fleet Support Ships

MISSION: Provide repair, salvage and a variety of other types of support to the combatant fleet.

Repair

Provide battle damage repair, maintenance and logistic support to ships assigned at anchor or moored to a pier, in a wartime environment.



Vulcan (AR 5) Class 1 ship
 Displacement: 16,270 tons
 Length: 529 ft.
 Beam: 73 ft.
 Max Speed: 19.2 knots
 Complement: 1,004

Rescue, Salvage & Towing

Provide rapid firefighting, dewatering, battle damage repair, and rescue towing assistance to save battle-damaged combatant ships in combat or high threat areas from further loss or damage; tow them to repair ships or bases located in safe areas.



Safeguard (ARS 50) Class 4 ships
 Displacement: 2,880 tons
 Length: 255 ft.
 Beam: 50 ft.
 Max Speed: 14 knots

Complement: 91



Edenton (ATS 1) Class 3 ships
 Displacement: 2,900 tons
 Length: 282 ft.
 Beam: 50 ft.
 Max Speed: 16 knots
 Complement: 129

Submarine Rescue

Deep submergency rescue and support to deep sea diving operations.



Pigeon (ASR 21) Class 1 ship
 Displacement: 4,200 tons
 Length: 251 ft.
 Beam: 86 ft.
 Max Speed: 15 knots
 Complement: 240 (ship's company)
 24 (submersible ops)

Military Sealift Command

The Military Sealift Command (MSC) maintains a fleet of ships which provides a variety of unique support missions to the fleet and other military services. These ships are primarily crewed by civilians with a contingent of U.S. Navy personnel.

Maritime Prepositioning

MISSION: Long-term prepositioning of U.S. Marine Corps unit equipment and supplies in set locations worldwide. (3 classes)



Fast Sealift

MISSION: Rapid, worldwide deployment of tanks, helicopters and other military supplies and equipment.



Combat Stores

MISSION: Provide refrigerated and general stores, dry provisions, technical and aviation spares, fleet freight, mail, personnel and other items underway from five stations and with two H-46 helicopters.



Oilers

MISSION: Transport bulk petroleum products from shore depots to replenishment ships and combatants under way making task groups as independent as possible of limited freight, mail and personnel. (3 classes)



Tankers

MISSION: Worldwide delivery of petroleum products to DoD users and support of fleet operating units. (3 classes)

Aviation Logistics Support

MISSION: Dedicated fast sealift for movement of a functional aviation intermediate maintenance activity to support U.S. Marine Corps fixed and rotary wing aircraft.



Ocean Surveillance

MISSION: Tow the Surveillance Towed Array Sensor (SURTASS). (2 classes)



FBM Resupply

MISSION: Provide logistic resupply for submarines and submarine tenders deployed overseas and at East Coast refit sites. (2 classes)



Oceanographic Research

MISSION: Support naval oceanography research. (3 classes)



Oceanographic Survey

MISSION: Mapping and oceanographic survey of ocean floors and coastlines. (5 classes)



Cable Repair

MISSION: Transport, deploy, retrieve, and repair submerged cables; tow acoustic projectors; cable plow; and conduct acoustic hydrographic and bathymetric surveys. (2 classes)



Auxiliary Crane

MISSION: Mobile discharge facility for non self-sustaining container ships in ports without operational container off-load capability.



Fleet Ocean Tugs

MISSION: Tow battle-damaged and otherwise non-operational fleet ships to safe ports; conduct salvage operations and support other special missions.



Hospital Ships

MISSION: Mobile, rapidly responsive afloat medical facility to provide acute medical and surgical care

in support of amphibious and naval task forces in areas where hostilities may be imminent. Also provide a full hospital asset for use by other U.S. government agencies in support of disaster relief operations worldwide.



Dry Cargo

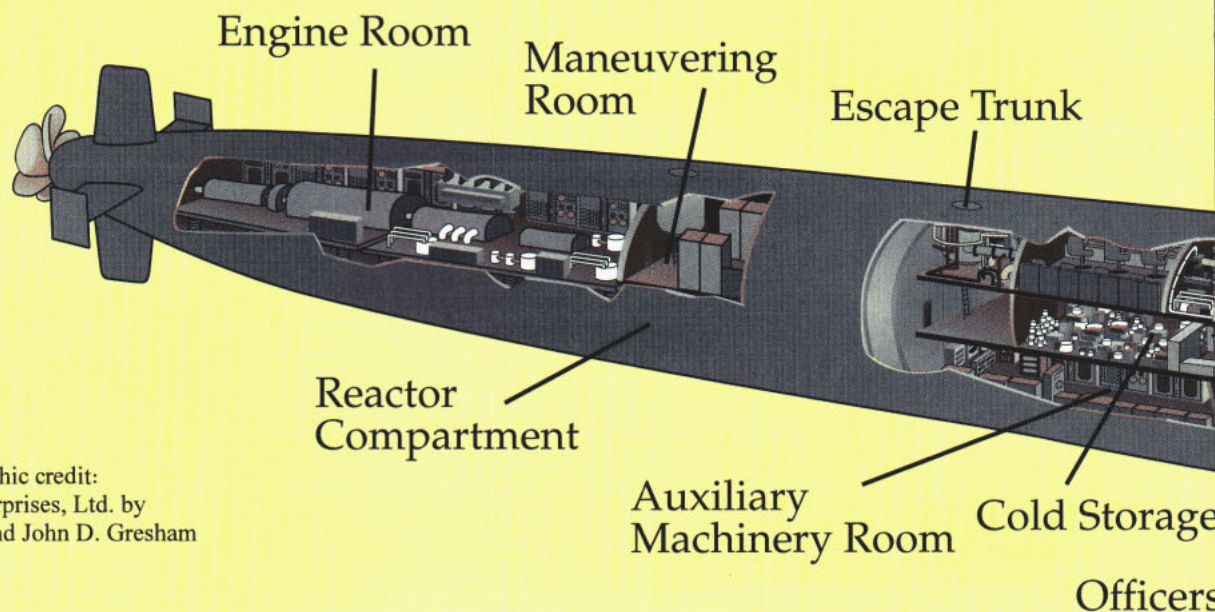
MISSION: Point-to-point cargo delivery service to MSC customers worldwide meeting requirements not normally covered by regularly scheduled commercial service (wide variety of types and sizes).

Ready Reserve Force

MISSION: A force of inactive ships to provide militarily useful transportation to meet wartime surge sealift requirements. Sources of RRF ships are commercial ships that are purchased through competitive procedures; ships from the near term pre-positioning force, which are upgraded to meet RRF standards; and ships removed from active MSC service. RRF ships are maintained in a 5-, 10- or 20-day readiness status.

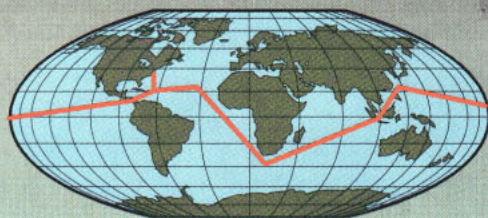


NUCLEAR SUBMARINES: FORWARD FROM



Submarine graphic credit:
Jack Ryan Enterprises, Ltd. by
Laura Alpher and John D. Gresham

ENDURANCE



Can cruise around the world
35 times without refueling,
limited only by
the needs of the crew.



STEALTH

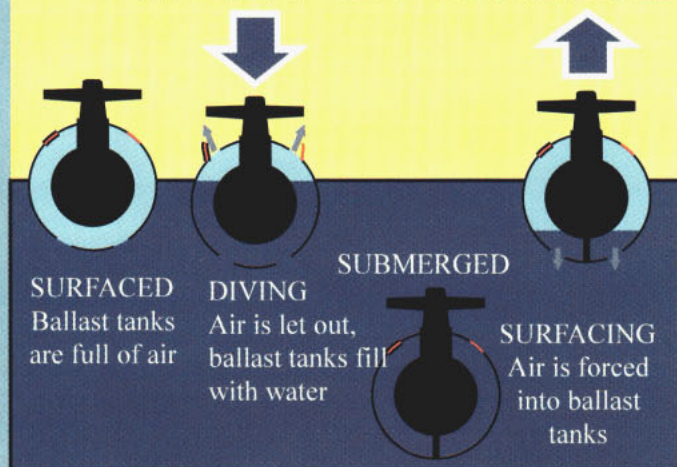
The Navy's stealthiest
general purpose warship.
Non-provocative, yet able to engage
with surprise at any time.



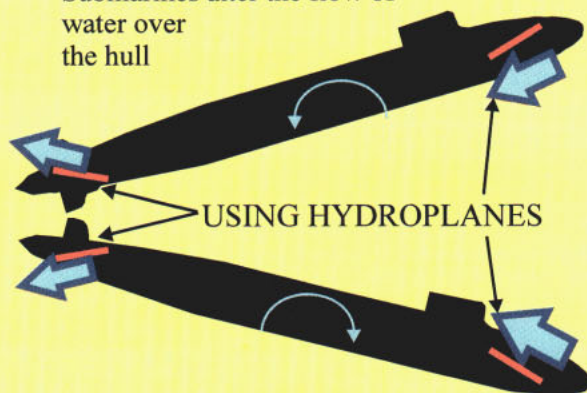
AGILITY

High speed for an
unlimited time. Perform
multiple missions
without re-supply.

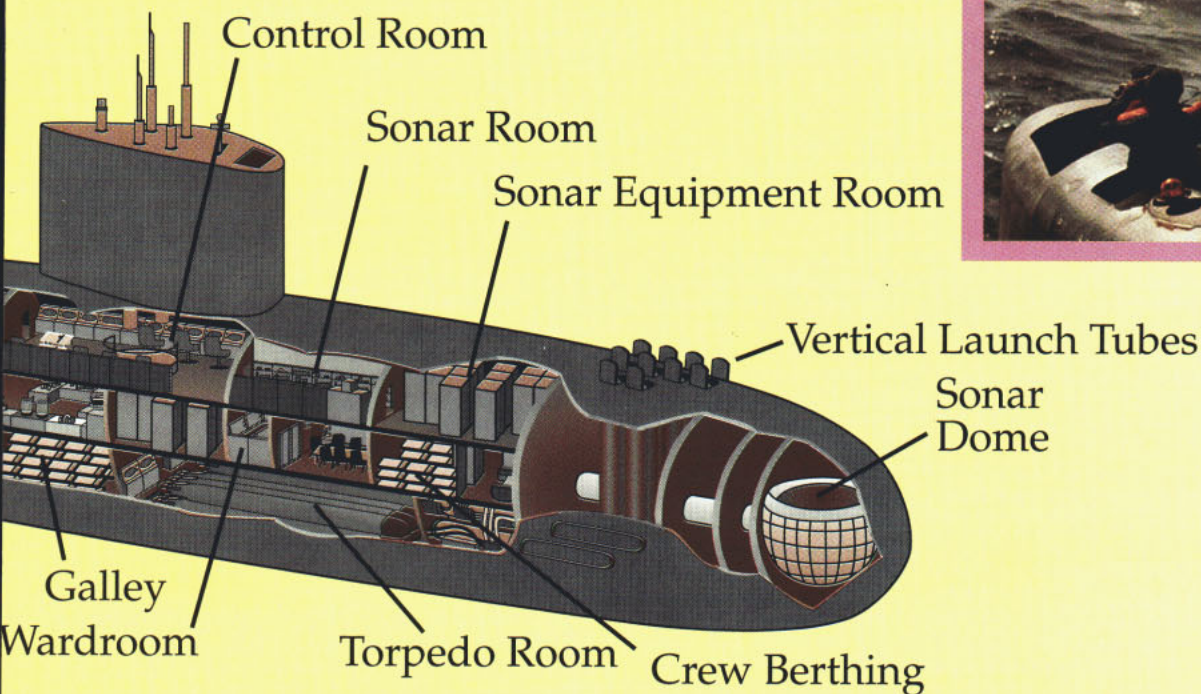
HOW SUBMARINES OPERATE



CHANGING DEPTH:
Submarines alter the flow of
water over the hull



FROM THE SEA



Coming Soon...

HIGH SPEED -
SEAWOLF will be the fastest U.S. submarine ever built submarines hold the record for the highest sustained ship speed- USS *Louisville* transit from San Diego to the Red Sea during *Desert Storm*.

COVERT SURVEILLANCE -
advanced visual, communications and electronics intercept capabilities.

Mk 48 ADCAP - the most capable acoustic torpedo in the world.

COVERT PRESENCE -
ability to submerge removes threat from aircraft or cruise missiles and most ships. Can operate with impunity in almost any waters.

TB-29 TOWED ARRAY -
SEAWOLF will have unparalleled detection ranges of submarines and surface ships.

A/N-BSY-2 - provides most capable combat control and acoustic systems in the world.

LARGE PAYLOAD:
SEAWOLF carries 50 weapons - any combination of *Tomahawk*, MK 48 Torpedo, *Harpoon* or mines.

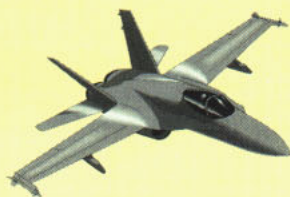
COVERT STRIKE WITH TOMAHAWK - Both the *Tomahawk* Land Attack Missile (TLAM) and the *Tomahawk* Anti-Ship Missile (TASM) carry 1000-pound high explosive warheads. The ability of the *SEAWOLF* to get in close without detection reduces flight time and chance of intercept.

ACOUSTIC QUIETING-
SEAWOLF will be the quietest ship in the world.

NUCLEAR POWER - provides unlimited endurance without logistic support - *SEAWOLF* limited only by crew requirements.



Fighters, Bombers & Tactical Aircraft



F/A-18 Hornet

The F/A-18 all-weather strike fighter provides fleet defense and escort. It is also used for force projection, interdiction and air support.

Wingspan: 40 ft., 5 inches
 Length: 56 ft.
 Height: 15 ft., 3 inches
 Speed: Mach 1.7+
 Range: 1,586 miles (fighter);
 1,533 (attack)
 Armament: 20mm Mk-61A1 *Vulcan* cannon
Sparrow III missile (fighter)
Sidewinder missile (fighter)
 Guided/conventional air-to-ground ordnance (attack)
 AGM 84, AGM 88 (attack)
 Crew: 1 (A, C & E); 2 (B, D & F)



EA-6B Prowler

The all-weather, subsonic *Prowler* supports air strikes and ground troops by jamming enemy radar, electronic data links and communications.

Wingspan: 53 ft.
 Length: 59 ft., 10 inches
 Height: 16 ft., 3 inches
 Speed: 575 mph
 Range: 1,000+ miles
 Armament: AGM-88A *Harm* missile
 Crew: 4



F/14 Tomcat

The variable sweep wing, supersonic F/14 fighter destroys multiple targets in all weather conditions.

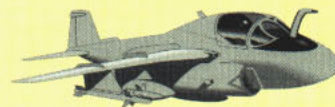
Wingspan: 64 ft. (unswept);
 38 ft. (swept)
 Length: 62.7 ft.
 Height: 16 ft.
 Speed: 576 mph
 Range: 2,000 nm.
 Armament: AIM-54s, AIM-7s and AIM-9s
 Air-to-ground ordnance
 20mm Mk-61A1 *Vulcan* cannon
 Crew: 2



S-3 Viking

The carrier-based all-weather multi-mission S-3 *Viking* seeks and destroys submarines and provides surveillance.

Wingspan: 68 ft., 8 inches
 Length: 53 ft., 4 inches
 Height: 22 ft., 9 inches
 Speed: 518 mph
 Range: 2,645 miles
 Armament: AGM-84 missiles; rockets; mines;
 torpedoes; depth charges
 Crew: 4



A-6E Intruder

The A-6E, an all-weather, two-seat carrier-based attack bomber, destroys fixed and moving targets on land or at sea.

Wingspan: 53 ft.
 Length: 54 ft., 7 inches
 Height: 16 ft. 3 inches
 Speed: 648 mph
 Range: 1,077 miles
 Armament: Bombs; rockets;
 air-to-surface missiles
 Crew: 2



P-3C Orion

The P-3C is a land-based, long-range anti-submarine patrol aircraft. Using sonobuoys and magnetic anomaly detection equipment, it detects, identifies and destroys submarines.

Wingspan: 99 ft., 7 inches
 Length: 116 ft., 8 inches
 Height: 33 ft., 8 inches
 Speed: 552 mph
 Range: 2,510 miles
 Armament: *Harpoon* cruise missile
 MK-46 torpedoes
Bullpup air-to-ground missiles
 Mines; depth charges; sonobuoys
 Crew: 12

Command and Control Aircraft



E-2C Hawkeye

The carrier-based E-2C aircraft uses computer sensors to provide early warning, threat analysis and counteraction control for a carrier battle group.

Wingspan: 80 ft., 7 inches
 Length: 57 ft., 8 inches
 Height: 18 ft., 4 inches
 Speed: 345 mph
 Range: 1,500+ miles
 Armament: None
 Crew: 5



E-6A Tacamo

The E-6A provides secure, jam-resistant strategic communications relay for submarines using a wire antenna several thousand feet long.

Wingspan: 148 ft., 4 inches
 Length: 150 ft., 4 inches
 Height: 42 ft., 5 inches
 Speed: 600 mph
 Range: 7,590 miles
 Armament: None
 Crew: 14

Training Aircraft



T-45A Goshawk

The T-45 serves as an intermediate and advanced pilot trainer for jet carrier aviation and tactical strike missions.

Wingspan: 30 ft., 10 inches
 Length: 39 ft., 4 inches
 Height: 13 ft., 6 inches
 Speed: Mach 1
 Range: 805 miles
 Armament: None
 Crew: 2 (instructor, student)



Helicopters



SH-3H *Sea King*

The ship-based SH-3H all-weather helicopter detects, classifies, tracks and destroys submarines, and provides support, search and rescue functions.

Length: 54 ft., 9 inches
Height: 17 ft.
Speed: 136 mph
Range: 623 miles
Armament: 2 - MK-46 torpedoes
Crew: 4



SH-2G *Seasprite*

The ship-based SH-2F helicopter provides anti-submarine and anti-ship surveillance, and targets aircraft.

Length: 52 ft., 7 inches
Height: 15 ft.
Speed: 153 mph
Range: 391 miles
Armament: 2 - Mk-46 torpedoes
Crew: 3



UH-46 *Sea Knight*

The versatile UH-46 transports cargo and personnel and conducts search and rescue missions.

Length: 46 ft.
Height: 17 ft.
Speed: 165 mph
Range: 132+ miles
Armament: None
Crew: 4



SH-60 *Seahawk*

The SH-60 is part of the LAMPS Mk-III computer integrated ship/helicopter weapons system. It provides a remote platform for weapons deployment, sensor information and surveillance.

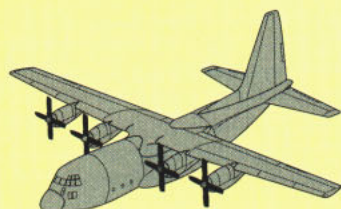
Length: 64 ft., 10 inches
Height: 17 feet
Speed: 144 mph
Range: 380 + miles
Armament: 2 - Mk-46 torpedoes
Crew: 3



CH-53 *Sea Stallion*

The CH-53 helicopter transports personnel, equipment and supplies. It can be equipped for mine countermeasures and amphibious operations.

Length: 67 ft., 5 inches
Height: 24 ft., 11 inches
Speed: 184 mph
Range: 665 miles
Armament: None
Crew: 3



C-130 *Hercules*

The versatile, multi-purpose C-130 transports personnel and cargo and can be outfitted for special operations.

Wingspan: 132 ft., 7 inches
Length: 97 ft., 9 inches
Height: 38 ft., 3 inches
Speed: 374 mph
Range: 2,350 miles w/ max. payload;
5,200 empty
Armament: None; can be fitted with 7.62mm miniguns, 20mm *Vulcan* cannons, 40mm *Bofors* cannons and 105mm Howitzer
Crew: 5

Transport Aircraft



C-9B *Skytrain II*

The C-9B provides intratheater transport and logistics support. It also airlifts naval reservists to and from training sites.

Wingspan: 93 ft., 3 inches
Length: 119 ft., 3 inches
Height: 27 ft., 5 inches
Speed: 565 mph
Range: 2,000 miles
Armament: None
Crew: 8



C-2A *Greyhound*

The C-2A turboprop delivers critical logistics support to carriers through its primary mission of Carrier On-board Delivery (COD).

Wingspan: 80 ft., 7 inches
Length: 56 ft., 10 inches
Height: 15 ft., 11 inches
Speed: 345 mph
Range: 1,495 miles
Armament: None
Crew: 4

SH-60 *Seahawk*

The Navy's *Seahawk* helicopter serves throughout the fleet in three derivative variants. The multi-mission *Seahawk* series is especially adapted for the demanding shipboard environment and stringent Navy mission requirements.

Seahawk missions include littoral warfare; inner and outer zone under-sea warfare; anti-surface surveillance and targeting; search and rescue; special operations; plane guard; and vertical replenishment/logistics.

HH-60H *Seahawk*

The HH-60H *Seahawk* is designed for Navy combat search and rescue (CSAR) and special warfare operations. Serving the active fleet and Naval Reserve, the HH-60H can navigate precisely over long distances using night/all-weather capabilities, and operates covertly to avoid the enemy. Planned upgrades to the HH-60H weapons capability include the addition of a FLIR/laser designator for targeting *Hellfire* missiles.

SH-60B *Seahawk*

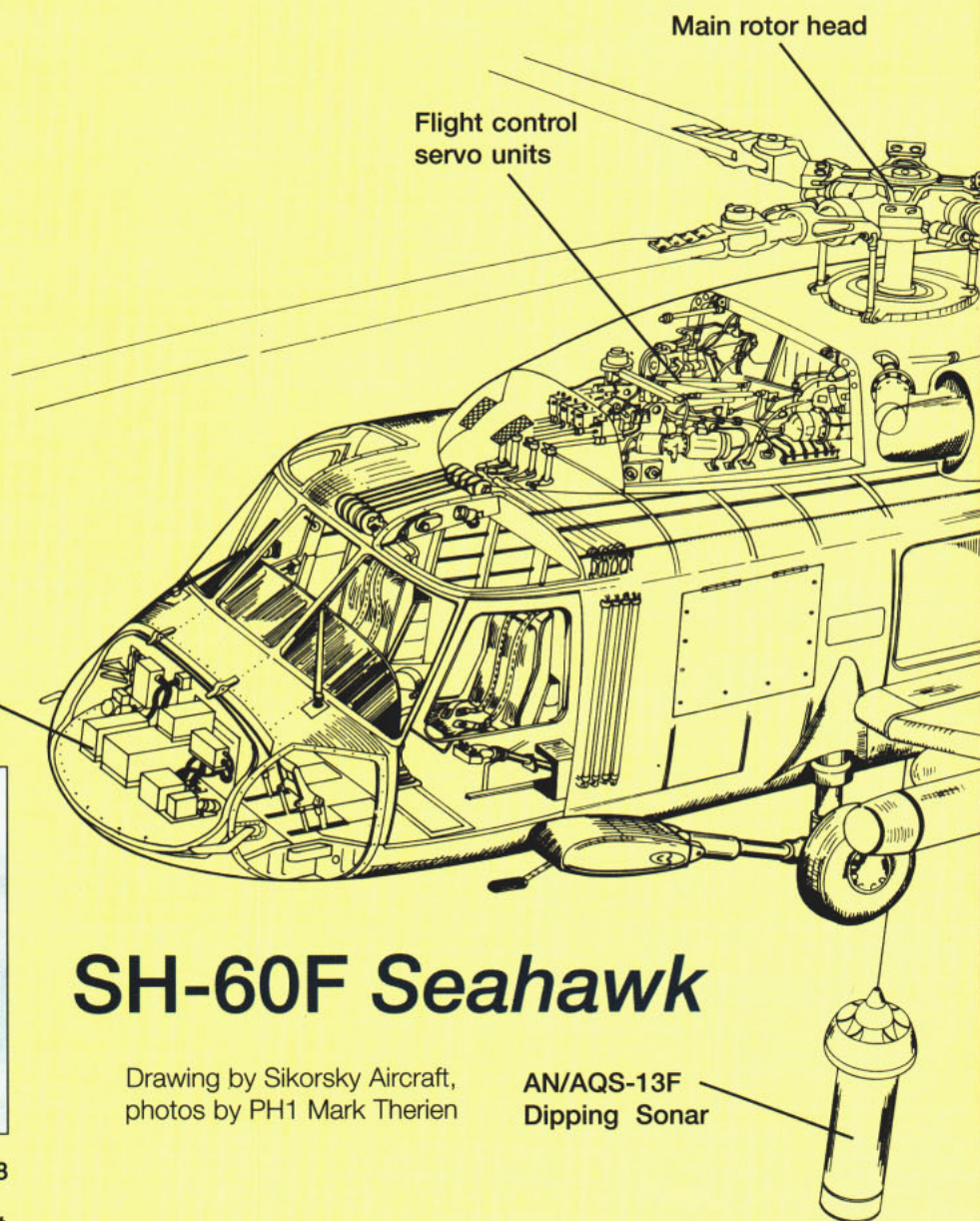
The SH-60B *Seahawk* is the platform for the Light Airborne Multi-Purpose System (LAMPS) MK III weapons system. It operates worldwide from the decks of cruisers, destroyers and frigates. The SH-60B helicopter is the forward eyes and ears of its host ship, and greatly extends the ship's weapons delivery capability, carrying missiles and torpedoes to meet the threat.

SH-60F *Seahawk*

The SH-60F *Seahawk* shares the rugged attributes of the SH-60B — reliability, endurance, speed and survivability — and operates off aircraft carriers. Its mission is to dash to a designated point, dip its sonar, locate submarines at extended ranges and launch its torpedoes with unmatched efficiency and effectiveness to protect the carrier battle group.



An SH-60B of Light Helicopter Squadron (HSL) 38 on board USS *Conolly* (DD 979) begins a patrol along the Haitian coast during Operation *Support Democracy*.



SH-60F *Seahawk*

Drawing by Sikorsky Aircraft,
photos by PH1 Mark Therien

AN/AQS-13F
Dipping Sonar



The *Seahawk* is a powerful running mate. To meet higher maritime performance and design requirements, the *Seahawk* is powered by twin T700-GE-401C engines with 1,900 shaft horsepower each.

Length: 64 ft., 10 in.

Rotor dimensions: 53 ft., 8 in.

Speed: 180 knots.

Range: About 380 nm.

600 lb. capacity electrically-driven rescue hoist.

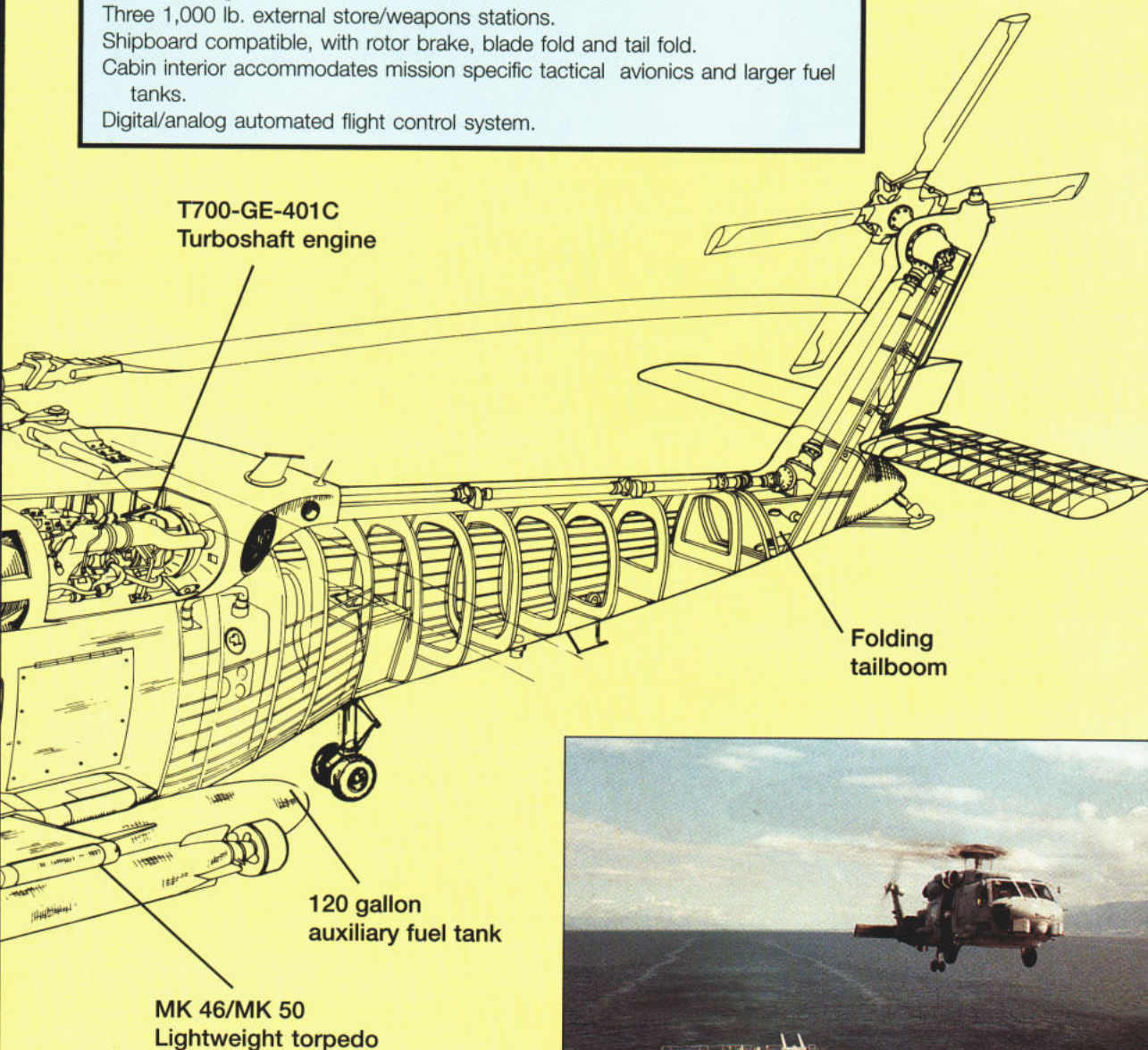
6,000 lb. cargo hook.

Three 1,000 lb. external store/weapons stations.

Shipboard compatible, with rotor brake, blade fold and tail fold.

Cabin interior accommodates mission specific tactical avionics and larger fuel tanks.

Digital/analog automated flight control system.



USS *Conolly* (DD 979) refuels an HSL 38 SH-60B while off the Haitian coast during Operation *Support Democracy*.

Air-to-Air Missiles



Sparrow

Primary mission: Highly maneuverable, radar-guided missile, with all-weather capability; can attack high-performance aircraft and missiles from any direction. **Dimensions:** length - 12 ft.; diameter - 8 in.; weight - 510 lbs. **Range:** more than 30 nautical miles. **Payload:** blast fragment, high explosive.

Phoenix

Primary mission: All-weather, long-range missile, carried in clusters, up to six missiles on the F-14; provides near simultaneous launch against multiple air targets. **Dimensions:** length - 13 ft.; diameter - 15 in.; weight - 1,024 lbs. **Range:** more than 104 nautical miles. **Payload:** proximity fuse, high-explosive; weight - 135 lbs.

Sidewinder

Primary mission: All-weather, heat-seeking, short-range, dogfight missile; can be used day or night and hones in on the engine exhaust of target aircraft. **Dimensions:** length - 9 ft., 5 in.; diameter - 5 in.; weight - 195 lbs. **Range:** more than 3.5 nautical miles. **Payload:** annular blast fragmentation; weight - 25 lbs.

AMRAAM

Primary mission: All-weather, radar-guided beyond-visual range missile; provides launch and leave capability and multiple target engagement capability. **Dimensions:** length - 12 ft.; diameter - 7 in.; weight - 335 lbs. **Range:** more than 35 nautical miles. **Payload:** blast high explosive.

Cruise Missiles

Tomahawk

Primary mission: Long-range, subsonic cruise missile; conventionally armed for anti-surface warfare; and conventionally or nuclear-armed in land attack versions. **Dimensions:** length - 18 ft., 3 in.; **Payload:** Conventional - 1,000 lb. *Bullpup* or conventional submunitions dispenser with combined effect bomblets. Nuclear - W-80 warhead.

Harpoon

Primary mission: All-weather, over-the-horizon anti-ship missile; capable of being launched from surface ships, submarines or from aircraft to destroy combatants, submarines or other shipping. **Dimensions:** length - 15 ft., surface/submarine launched; 12 ft., 7 in. air launched; diameter - missile body, 1 ft., 2 in. **Payload:** 500 lbs. high explosive, blast penetrator.



Surface-to-Air Missiles

Standard Missile Family

Primary mission: Engage and intercept aircraft, anti-ship missiles and surface ships. **SM-1 MR, SM-2 MR Dimensions:** length - 14 ft., 7 in.; diameter - 13.5 in.; weight - SM-1, 1,100 lbs.; SM-2, 1,380 lbs. **Payload:** proximity fuse, high explosive. **SM-2 ER Dimensions:** length - 26.2 ft.; diameter - 13.5 in.; weight - 2,980 lbs. **Payload:** proximity fuse, high explosive.

Fleet Ballistic Missiles

Trident II (D-5)

Primary mission: Subsurface to surface strategic nuclear deterrence. **Dimensions:** length - 44 ft.; diameter - 83 in.; weight - 130,000 lbs. **Range:** more than

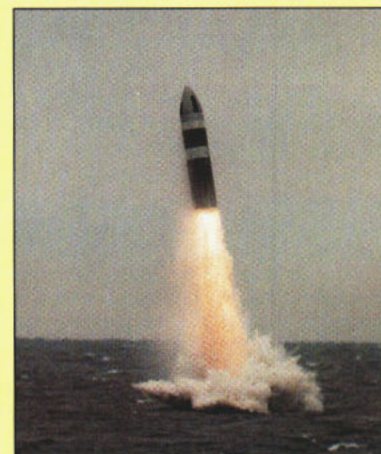
4,000 nautical miles. **Payload:** Thermonuclear MIRV (Multiple Independently Targetable Re-entry Vehicle); Maneuverable Re-entry Vehicle (MRV) warhead.

Trident I (C-4)

Primary mission: Subsurface to surface strategic nuclear deterrence. **Dimensions:** length - 34 ft.; diameter - 74 in.; weight - 73,000 lbs. **Range:** 4,000 nautical miles. **Payload:** Thermonuclear MIRV with maneuverable warhead.

Poseidon (C-3)

Primary mission: Subsurface to surface strategic nuclear deterrence. **Dimensions:** length - 34 ft.; diameter - 74 in.; weight - 65,000 lbs. **Range:** 2,500 nautical miles. **Payload:** Thermonuclear MIRV with maneuverable warhead.





Air-to-Ground Missiles



HARM Missile

Primary mission: High-speed, anti-radiation missile; designed to seek out and destroy enemy radar-equipped air defense systems. **Dimensions:** length - 13 ft., 8 in., diameter - 10 in., weight - 807 lbs. **Range:** more than 50 nautical miles. **Payload:** blast fragments.

Anti-radar Missile

Primary mission: The AGM-45 shrike is designed to home in on anti-aircraft radars. **Dimensions:** length - 10 ft., diameter - 8 in.; weight - 390 lbs. **Range:** delivered by fighter aircraft, employs solid-fueled rocket. **Payload:** explosive blast warhead.

IR Maverick Missile

Primary mission: Forward fired, infrared-guided weapon; designed for day/night sea warfare and land interdiction. **Dimensions:** length - 8 ft. 2 in.; diameter - 12 in.; wing span - 2 ft., 4.5 in.; weight 675 lbs. **Range:** 6 to 12 nautical miles. **Payload:** penetrating/blast warhead.

Aegis System

The *Aegis* System, named after the mythological shield of Zeus, draws on state-of-the-art technology as a total weapon system. It is the most capable surface-launched missile system the Navy has ever put to sea.

Primary mission: Used against anti-ship cruise missiles and manned aircraft flying in all speed ranges from subsonic to supersonic; system has all-weather capability and outstanding ability in chaff and jamming environments.

Benefits: Provides area defense for a battle group and a clear air picture for more effective deployment of F-14 and F/A-18 aircraft. It also enables fighter aircraft to concentrate more on the outer air battle while cruisers and destroyers assume a greater responsibility for battle group area defense.



Torpedoes



MK 48 and MK 48 Advanced Capability (AdCap) Torpedo

Primary mission: Subsurface to subsurface and subsurface to surface. **Dimensions:** length- 19 ft.; diameter - 21 in.; weight - 3,434 lbs., (MK 48 AdCap - 3,695 lbs.). **Range:** more than 5 miles; depth - more than 1,200 ft. **Guidance:** wire-guided active and/or passive homing. **Payload:** 650 lbs. high-explosive warhead.

MK 46 Torpedo

Primary mission: Launched from surface combatant torpedo tubes, ASROC missile and fixed and rotary wing aircraft. **Dimensions:** length - 8.5 ft.; diameter - 12.75 in., weight - 517.6 lbs. **Guid-**

ance: 2 different modes ctive or passive/active homing. **Payload:** 98 lbs. of PBXN-103 high explosive.

MK 50 Torpedo

Primary mission: Air to sub-surface, surface to sub-surface **Dimensions:** length - 9.3 ft.; diameter - 12.75 in.; weight - 750 lbs. **Guidance:** active/passive acoustic homing.

Naval Guns

MK 15 *Phalanx* Close-in Weapons System (CIWS)

Primary mission: Fast-reaction, rapid-fire 20-millimeter gun system; provides defense against anti-ship missiles and hostile air targets at short range. **Dimensions:** weight - 12,500 lbs.; magazine capacity - 989 rounds of 20 mm ammunition. **Features:** 3,000 - 4,500 rounds per minute.

5-inch/.54 Caliber Lightweight Gun

Primary mission: Fires at a rate of 16 to 20 rounds per minute; provides surface combatants with accurate naval gunfire against fast, highly maneuverable surface targets, air threats and shore targets.

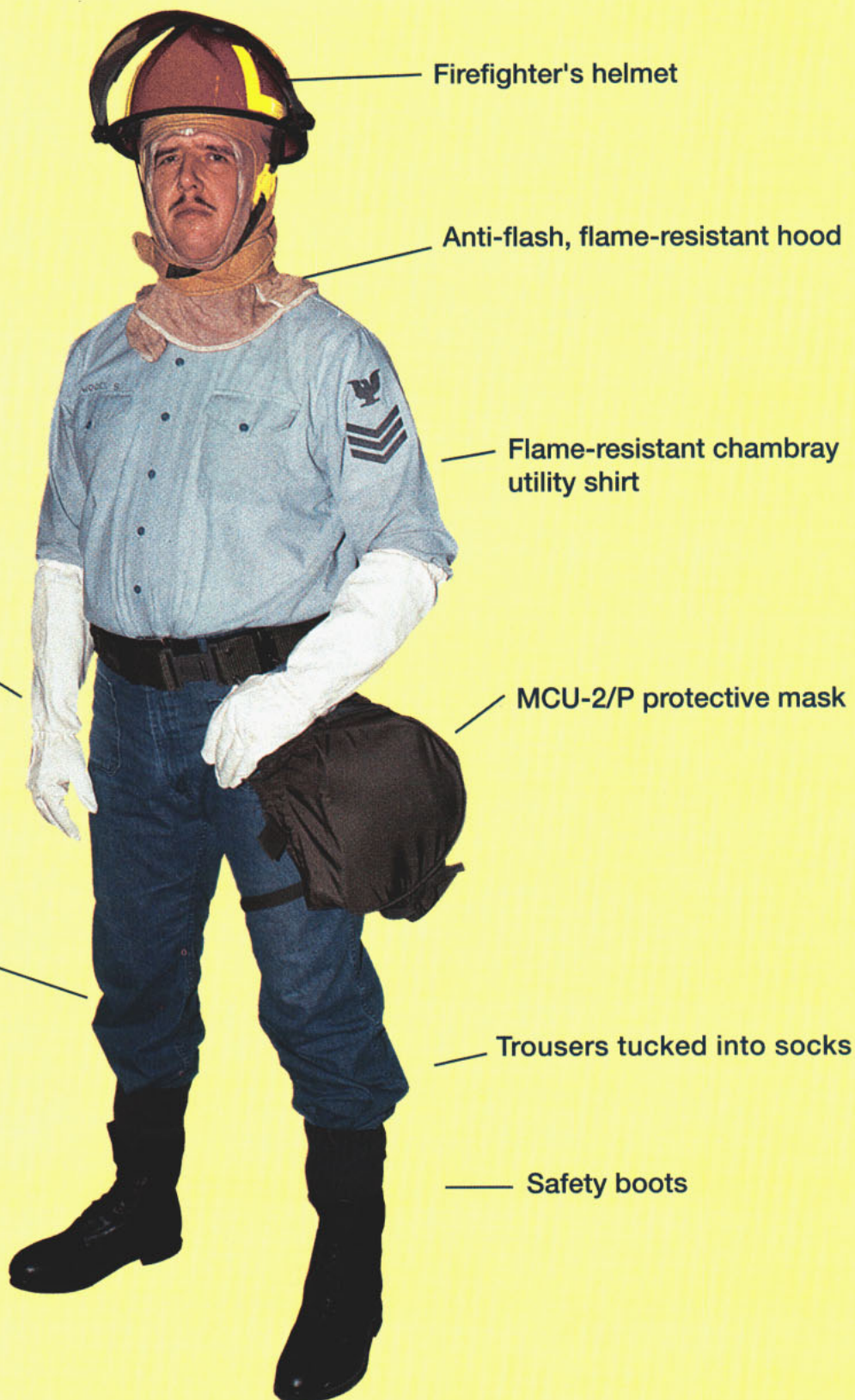
MK 75, 76mm/.62 Caliber Gun System

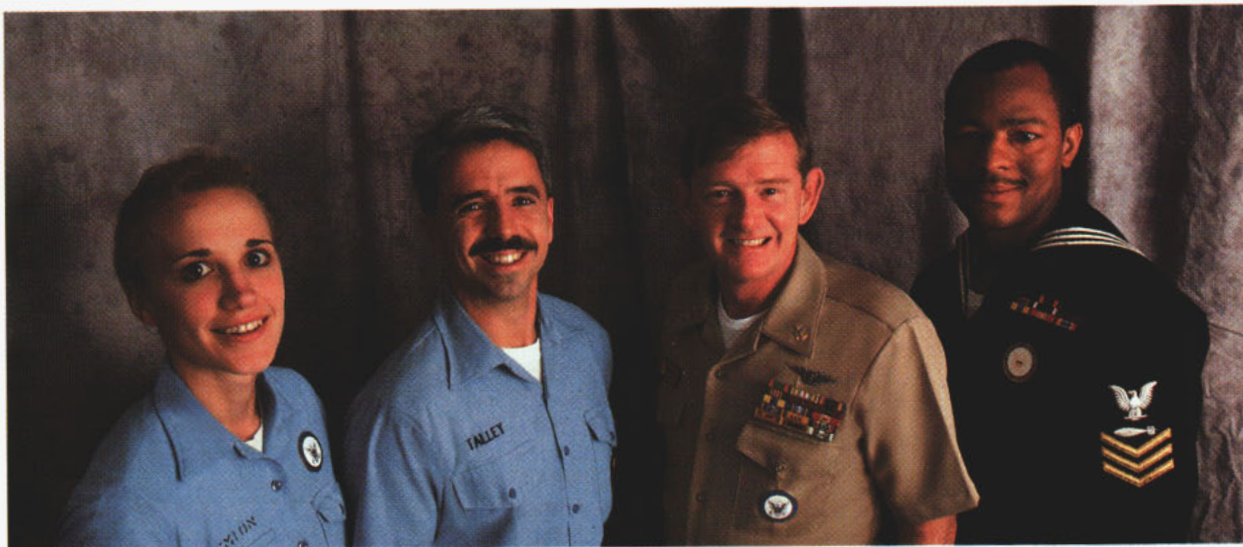
Primary mssion: Provides frigates and other combatants with a fast-reaction, lightweight gun; counters aircraft, cruise missiles and surface ships. **Features:** an enclosed naval gun mount, single barrel, remote-controlled, rapid-fire capability.



Our Main Battery

Many of the Navy's premier weapons were detailed on the preceding pages. However, none of them would be effective without our main battery - the American Sailor. Well-trained, well equipped and fit to fight, Navy men and women ensure the readiness of our forward deployed Navy. Here, DC1 Scott J. Wood demonstrates the battle-ready shipboard Sailor. Wood, a native of Suffolk, Va., instructs Damage Control Team Training and Damage Control Petty Officer courses at Fleet Training Center Atlantic, Norfolk.





YOUR CAREER IS OUR JOB.

Your Command Retention Team has only one purpose in mind. To help you realize your full career potential. One of the ways we can do that is to direct you to the Professional Development Board, created to help you move into positions with greater responsibility. After an interview with the board, you'll get advice about your selected career path. You'll also find out about training programs that can lead to greater opportunities for advancement and a bigger paycheck.

For additional information about other programs and opportunities that are available to you call 1-800-FOR-NAVY. See how far your career can go. Meet with a member of the Team today.

NAVY
YOU AND THE NAVY.
FULL SPEED AHEAD.

What makes good petty officers?

Good petty officers know what their uniform, their Navy and their flag stands for. They are proud members of the best fighting organization in the world — the United States Navy.

Good petty officers are concerned with their Sailors' individual welfare and their future. They pat their Sailors on the back when they do well, and give them hell if they need it. That way they make better Sailors and make progress. They teach their trade. They encourage. They inspire. They are consistent. They are competitive. Their outfit is the best. They assume responsibility willingly. They give their Sailors responsibility. They pass the word. They create team spirit.

Good petty officers put their hearts and souls into their work. They radiate enthusiasm and spark. They know the Navy. They know their rates, and they genuinely appreciate what they know.

Good petty officers recognize that success comes from the effort of a larger number of people, not just one or two. The whole organization has to function well, not just a few members.

—ADM Arleigh Burke